

Pascal Iron Works.
MORRIS, TASKER & CO.'S
ILLUSTRATED CATALOGUE

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20530

HENRY B. ASHMEAD, BOOK AND JOB PRINTER,
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PRICE LIST

FOR

MORRIS, TASKER & CO.'S ILLUSTRATED CATALOGUE.

FOURTH EDITION. 1861.

Persons in ordering will please state the "Edition" they order from.

LAP WELDED AMERICAN CHARCOAL IRON BOILER FLUES.

No. PAGE.

- 1 1 With Plain Ends.
2 " With Safe Ends.
3 " With Safe Ends 1-16 inch larger than rest of the Flue.
4 " With Safe Ends, one of which is 1-16 inch larger than rest of the Flue.
5 " With Safe Ends, one of which is 1-4 inch less than rest of the Flue.
6 " Same as No. 5, with Round Shoulder.
7 " With Screw on one end, Collar on other.
8 " Cross Flue for Fire Box.

For Prices, see Table below.

TABLE OF STANDARD DIMENSIONS AND PRICES.

Cut to Specific Lengths to suit Purchasers.

External Diameter.	Price, per foot.	PRICE. Each Safe End, Collar Extra.	PRICE. Of Screws on one end, and Collar on the other.	PRICE. Of Cross Tube, Each Tube Extra.	*Standard Thick- ness.	*Nearest Wire Gauge Thickness.	Internal Diameter.	Internal Circum- ference.	External Circum- ference.	Length of Pipe per square foot of inside surface.	Length of Pipe, per square foot of outside surface.	Internal area.	External area.	Weight, per foot.
Inches.	\$ c.	\$ c.	\$ c.	\$ c.	Inches.	Inches.	Inches.	Inches.	Inches.	Feet.	Feet.	Inches.	Inches.	lbs.
1	.15	.15	.80		0.088	13½	0.825	2.591	3.142	4.613	3.819	0.535	0.785	0.845
1½	.18	.16	.82	1.45	0.088	13½	1.075	3.376	3.927	3.555	3.056	0.908	1.227	1.078
1¾	.22	.16	.82	1.75	0.088	13½	1.325	4.162	4.712	2.859	2.547	1.379	1.767	1.311
1¾	.24	.18	.86		0.098	13	1.554	4.882	5.498	2.458	2.183	1.897	2.405	1.717
2	.28	.18	.86	2.50	0.098	13	1.804	5.667	6.283	2.118	1.909	2.556	3.142	1.981
2¼	.31	.20	.90	2.75	0.098	13	2.054	6.484	7.069	1.850	1.698	3.314	3.976	2.238
2½	.33	.23	.96	3.00	0.109	12	2.283	7.172	7.854	1.673	1.528	4.094	4.909	2.755
2¾	.36	.26	1.02		0.109	12	2.533	7.957	8.639	1.508	1.399	5.039	5.940	3.045
3	.41	.29	1.08	4.00	0.109	12	2.783	8.743	9.425	1.373	1.273	6.083	7.069	3.333
3¼	.46	.32			0.119	11	3.012	9.462	10.210	1.268	1.175	7.125	8.296	3.958
3½	.60	.35			0.119	11	3.262	10.248	10.995	1.171	1.091	8.357	9.621	4.272
3¾	.70	.38			0.119	11	3.512	11.033*	11.781	1.088	1.018	9.687	11.045	4.590
4	.75	.40			0.130	10	3.741	11.753	12.566	1.023	0.955	10.992	12.566	5.320
4½	1.00	.43			0.130	10	4.241	13.323	14.137	0.901	0.849	14.126	15.904	6.010
5	1.15	.45			0.140	9½	4.72	14.818	15.708	0.809	0.764	17.497	19.635	7.226
6	1.65	.50			0.151	9	5.699	17.904	18.849	0.670	0.637	25.509	28.274	9.346
7	2.00	.60	Made to order.	Made to order.	0.172	7½	6.657	20.914	21.991	0.574	0.545	34.805	38.484	12.435
8	2.75	.75			0.182	7	7.636	23.989	25.132	0.500	0.478	45.795	50.265	16.211
9	3.50				0.193	6½	8.615	27.055	28.274	0.444	0.424	58.291	63.617	18.002
10	4.25				0.214	5½	9.573	30.074	31.416	0.399	0.382	71.975	78.540	22.19

* The thickness of Flue can be varied to order, at prices dependent upon the thickness and number of feet wanted.

† In estimating the effective steam-heating or boiler surface of Tubes or Flues; the surface in contact with air or gases of combustion (whether internal or external to the Tubes or Flues) is to be taken.

For heating liquids by steam, superheating steam, or transferring heat from one liquid or one gas to another, the mean surface of the Tubes or Flues is to be taken.

CLASS FIRST.

WROUGHT IRON WELDED TUBE, AND FITTINGS FOR SAME, &c., &c.

No.	PAGE.	
9	2	Hydraulic Tube. Any diameter or thickness made to order.
10	11	} Extra Strong and Double Extra Strong Tube.
11	11	

TABLE OF STANDARD DIMENSIONS AND PRICES.

Nominal Diameter.	Actual Outside Diameter.	Thickness, Extra Strong.	Thickness, Double Extra Strong.	Actual Inside Diameter, Extra Strong.	Actual Inside Diameter, Double Extra Strong.	Price per Foot, Extra Strong.	Price per foot, Double Extra Strong.
Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	\$ c.	\$ c.
$\frac{3}{8}$	0.405	0.101	.	0.203	.	.10	.
$\frac{1}{2}$	0.54	0.11	.	0.32	.	.12	.
$\frac{3}{4}$	0.675	0.119	.	0.437	.	.15	.
$\frac{1}{2}$	0.84	0.13	0.26	0.59	0.32	.21	.42
$\frac{1}{2}$	1.05	0.143	0.286	0.764	0.478	.26	.52
1	1.315	0.16	0.32	0.995	0.675	.35	.70
$1\frac{1}{4}$	1.66	0.183	0.366	1.294	0.928	.50	1.00
$1\frac{1}{2}$	1.9	0.198	0.396	1.504	1.108	.65	1.30
2	2.375	0.229	0.458	1.917	1.459	.90	1.80
$2\frac{1}{2}$	2.875	0.262	0.524	2.331	1.807	1.25	2.50

12 3

WROUGHT IRON WELDED TUBE,

In Random Lengths for Steam, Gas or Water. All proved by Hydraulic Pressure of 300 pounds per square inch.

TABLE OF STANDARD DIMENSIONS AND PRICES.

Nominal Diameter.	Price per foot.	Price per Foot, Galvanized, being superior to Water, Lead Pipe.	Actual Outside Diameter.	Thickness.	Actual Inside Diameter.	Internal Circumference.	External Circumference.	Length of Pipe per square foot of inside surface.	Length of Pipe per square foot of outside surface.	Internal Area.	External Area.	Length of Pipe containing one cubic foot.	Weight per foot of length.	Number of threads per inch of screw.
Inches.	\$ c.	\$ c.	Inches.	Inches.	Inches.	Inches.	Inches.	Feet.	Feet.	Inches.	Inches.	Feet.	lbs.	
$\frac{3}{8}$	.07	.14	0.405	0.068	0.270	0.848	1.272	14.15	9.44	0.0572	0.129	2500.	0.243	27
$\frac{1}{2}$	.08	.15	0.54	0.088	0.364	1.144	1.696	10.50	7.075	0.1041	0.229	1385.	0.423	18
$\frac{3}{4}$	.09	.17	0.675	0.091	0.494	1.532	2.121	7.67	5.657	0.1916	0.358	751.5	0.561	18
$\frac{1}{2}$	.10	.18	0.84	0.109	0.623	1.957	2.652	6.13	4.502	0.3048	0.554	472.4	0.845	14
$\frac{1}{2}$	.13	.23	1.05	0.113	0.824	2.589	3.299	4.635	3.637	0.5333	0.866	270.	1.126	14
1	.17	.30	1.315	0.134	1.048	3.292	4.134	3.679	2.903	0.8627	1.357	166.9	1.670	11
$1\frac{1}{4}$	.26	.40	1.66	0.140	1.380	4.335	5.215	2.768	2.301	1.496	2.164	96.25	2.258	11
$1\frac{1}{2}$	.32	.50	1.9	0.145	1.611	5.061	5.969	2.371	2.01	2.038	2.835	70.65	2.694	11
2	.50	.70	2.375	0.154	2.067	6.494	7.461	1.848	1.611	3.355	4.430	42.36	3.634	11
$2\frac{1}{2}$	.90	1.20	2.875	0.204	2.468	7.754	9.032	1.547	1.328	4.783	6.491	30.11	5.773	8
3	1.30	1.75	3.5	0.217	3.067	9.636	10.996	1.245	1.091	7.388	9.621	19.49	7.547	8
$3\frac{1}{2}$	1.60	2.25	4.0	0.226	3.548	11.146	12.566	1.077	0.955	9.887	12.566	14.56	9.055	8
4	1.90	2.75	4.5	0.237	4.026	12.648	14.137	0.949	0.849	12.730	15.904	11.31	10.728	8
$4\frac{1}{2}$	2.40	3.25	5.	0.247	4.508	14.153	15.708	0.848	0.765	15.939	19.635	9.03	12.492	8
5	2.75	3.75	5.563	0.259	5.045	15.849	17.475	0.757	0.629	19.990	24.299	7.20	14.564	8
6	4.00	5.25	6.625	0.280	6.065	19.054	20.813	0.63	0.577	28.889	34.471	4.98	18.767	8
7	5.50	7.25	7.625	0.301	7.023	22.063	23.934	0.544	0.505	38.737	45.663	3.72	23.410	8
8	7.00	9.25	8.625	0.322	7.982	25.076	27.096	0.478	0.444	50.039	58.426	2.88	28.348	8
9	.	.	9.688	0.344	9.001	28.277	30.433	0.425	0.394	63.633	73.715	2.26	34.077	8
10	.	.	10.75	0.366	10.019	31.475	33.772	0.381	0.355	78.838	90.762	1.80	40.641	8

Taper of threads, 1 to 32 on each side.

CLASS FIRST.—*Continued.*

		Nominal Diameter. Inches.	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	6	7	8	Price for each.
No.	PAGE.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
13	3	Long Screws, . . . . .	.20	.24	.28	.35	.50	.70	.92	1.45	2.30	3.50	4.60	.	.	.	.	.	.	.	"
14	"	Wrought Bends, . . . . .	.16	.18	.20	.23	.30	.40	.55	.70	1.05	.	.	.	.	.	.	.	.	.	"
15	"	Spring from the Main, 10°,	.11 .12 .13 .15 .18 .23 .34 .40 .60 . . . . .	.12 .13 .15 .18 .23 .34 .40 .60 . . . . .	.13 .15 .18 .23 .34 .40 .60 . . . . .	.15 .18 .23 .34 .40 .60 . . . . .	.18 .23 .34 .40 .60 . . . . .	.23 .34 .40 .60 . . . . .	.34 .40 .60 . . . . .	.40 .60 . . . . .	.60 . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
16	"	" " " 40°																			
17	"	" " " 17°																			
18	"	Sockets, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.21	.30	.46	.70	1.10	1.50	2.00	2.60	3.20	4.70	6.40	8.25	"
19	"	Reducing Sockets, and Right and Left Hand Sockets, . . . . .	.06	.07	.08	.09 $\frac{1}{2}$	.12	.17	.23	.33	.50	.77	1.20	1.65	2.20	2.85	3.50	5.20	7.00	9.00	"
20	"	Caps, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
21	"	Plugs, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
22	"	Lock Nuts, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
23	"	Close Nipples, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
24	"	Lock Nuts, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
25	"	Bushings, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
26	"	Shoulder Nipples, . . . . .	.05	.06	.07	.08 $\frac{1}{2}$	.11	.16	.	.	.	.	.	.	.	.	.	.	.	.	"
(27	"	Gas Hooks, see Class Fourth,) net.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	"
28	"	Crosses, . . . . .	.13	.15	.18	.22	.28	.41	.55	.80	1.20	1.85	2.80	3.90	5.00	6.55	8.20	11.90	16.20	21.00	"
28a	"	Globe Crosses, Reducing and Corner Fittings. Same price as Crosses, Tees, or Elbows of usual forms; the largest outlet being taken as standard for price.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	"
29	"	Tees, . . . . .	.10	.12	.14	.17	.22	.32	.42	.61	.92	1.42	2.20	3.05	4.00	5.15	6.35	9.35	12.75	16.50	"
30	"	Elbows, . . . . .	.07	.08 $\frac{1}{2}$	.10	.12	.15	.23	.30	.42	.66	1.00	1.60	2.20	3.00	3.75	4.50	6.80	9.30	12.00	"
31	"	Return Bends, Close Pattern. Distance from centre to centre, inches,	1 $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{5}{8}$	2	2 $\frac{1}{4}$	2 $\frac{3}{4}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6	6 $\frac{1}{2}$	7	8	9	10	"
32	"	" " Wide " " " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	"
33	4	" " Square " " " "	12c	16c	22c	35c	.50	.70	1.00	1.50	.	.	.	.	.	.	.	.	.	.	"
36		Collars.—Made to order.																			

MANIFOLDS.

ALL MANIFOLDS have left-hand Taper Screws, unless especially ordered, either with running or right-hand Taper Screws.

THEY are also open at both ends, with *right-hand* Taper Thread of same size as Outlets, irrespective of size of body. EITHER or both ends, however, can be drilled out to take Screws the size of body, or any size less than the size selected as size of body.

BACK OR SIDE OUTLETS can be attached to any manifold pattern to order; but in ordering, care must be taken to describe the plan of attachment of Back or Side Outlets.

BACK OR SIDE OUTLETS of same size as Front Outlets, will be charged as additional Front Outlets; other sizes, proportionally.

NUMBER OF OUTLETS.		2	3	4	5	6	7	8	10	12	14	16	18	20
Size of Body.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
For 1 inch Pipe,	1 ½	.68	.88	1.08	1.28	1.48	1.68	1.88	.	.	.	.	.	.
	1 ½	.76	.98	1.21	1.43	1.66	1.88	2.11	.	.	.	.	.	.
	2	.85	1.10	1.35	1.60	1.85	2.10	2.35	2.85	3.35	3.85	4.35	4.85	5.35
For ¾ inch Pipe,	1	.43	.55	.68	.80	.93	1.05	1.18	.	.	.	.	.	.
	1 ½	.49	.64	.78	.93	1.07	1.22	1.36	.	.	.	.	.	.
	1 ½	.56	.72	.89	1.05	1.22	1.38	1.55	1.88	2.21	2.54	2.87	3.20	3.53

MANIFOLDS, for $\frac{1}{2}$ inch Pipe Outlets, body size of 1 inch pipe, at 18 cents each, plus 12 cents for each Outlet.

"	"	1 1/4 "	"	"	"	2 "	"	45 "	"	"	"	30 "	"	"
---	---	---------	---	---	---	-----	---	------	---	---	---	------	---	---

" " 1 $\frac{1}{2}$ " " " 2 $\frac{1}{2}$ " " 63 " " " 42 " " "

" " 2 " " " " 3 " " 99 " " " 66 " " "

" " 1 " " are $2\frac{1}{2}$ from Centre to Centre.

11	11	3	11	11	11	2	11	11	11
		4							

CLASS FIRST.—*Continued.*

MANIFOLD VALVES.

No.	PAGE.
346	4

NUMBER OF OUTLETS.		2	3	4	5	6	7	8	10
MANIFOLD VALVES, {	Size of Body.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	For 1 in. pipe.	2	4.25	6.00	8.00	9.75	11.75	13.75	15.50
	" 3/4 "	1½	3.25	4.75	6.25	7.75	9.25	10.75	12.25

COIL STANDS.

NO.	PAGE.
34 $\frac{1}{2}$	4

NUMBER OF PIPES HIGH.		2	4	6	8	10	12	14	16	18	20	22	24
Size of Pipe.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
COIL STANDS, per pair, {	1	.44	.62	.80	.98	1.16	1.34	1.98	2.22	2.46	2.70	2.94	3.18
	$\frac{3}{4}$	.34	.48	.62	.76	.90	1.04	1.18	.	.	.	.	.

CAST IRON FLANGES.

NO.	PAGE.
35	4

SIZE OF PIPE VVHICH THEY WILL SREVV.	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	Inches.
Diameter of Flanges, Inches,	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	each.
12	2.37	2.46	2.58	2.70	"
11	1.90	1.99	2.09	2.20	2.34	"
10	1.60	1.69	1.78	1.91	2.04	"
$9\frac{1}{2}$	1.35	1.44	1.53	1.62	1.75	1.89	"
9	1.18	1.21	1.30	1.39	1.50	1.62	1.75	"
$8\frac{1}{2}$	1.00	1.05	1.10	1.18	1.28	1.38	1.57	.	"
890	.94	.99	1.07	1.17	1.27	1.40	.	"
$7\frac{1}{2}$76	.80	.84	.88	.97	1.08	1.17	.	.	"
767	.71	.75	.79	.89	.99	.	.	.	"
$6\frac{1}{2}$.	.	.55	.58	.62	.67	.72	.80	.90	.	.	.	"
6	.	.46	.48	.51	.55	.60	.64	.73	.	.	.	.	"
$5\frac{1}{2}$.	.39	.42	.45	.49	.53	.58	.	.	.	.	.	"
5	.33	.34	.36	.39	.44	.48	.	.	.	.	.	.	"
$4\frac{1}{2}$	.28	.30	.32	.34	.38	.42	.	.	.	.	.	.	"
4	.24	.25	.27	.30	.34	.	.	.	.	.	.	.	"

NO.	PAGE.
35 $\frac{1}{2}$	4

CAST IRON FLANGES WITH BOLTS, WITH DIAMETERS CORRESPONDING TO THOSE OF FLANGES UPON CAST IRON PIPE, FOR CONNECTING WROUGHT AND CAST IRON PIPE TOGETHER.

[illegible]

CLASS FIRST--*Continued.*

TAPPING FLANGES, TO ORDER.

Sizes.	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4 "
Price, net.	7 cts.	8 cts.	9 cts.	10 cts.	13 cts.	17 cts.	21 cts.	29 cts.	40 cts.	56 cts.	80 cts.	\$1.00

NO.	PAGE		Number of Hooks. . .	1	2	3	4	5	6	7	8	10	12
139		13	Hook Plates,										
142		13	Single Hook Plates, . . .	For $\frac{3}{4}$ inch Pipe, price, .	6 cts.	10 cts.	14 cts.	18 cts.	22 cts.	26 cts.	30 cts.	34 cts.	
143		13	Single Hooks,	For 1 inch Pipe, price, .	8 "	13 "	18 "	23 "	28 "	33 "	38 "	43 "	
140		13	Corner Plates,	For $\frac{3}{4}$ inch Pipe, price, .	8 "	13 "	18 "	23 "	28 "	33 "	38 "	43 "	
140 a		13	Ring Plates,	For 1 inch Pipe, price, .	10 "	16 "	22 "	28 "	34 "	40 "	52 "		

			Number of Pipes,	2	4	6	8	10	12
141	13	Rosette Plates,	For $\frac{3}{4}$ inch Pipe, price,	24 cts.	40 cts.	56 cts.	72 cts.	88 cts.	\$1.04
			For 1 inch Pipe, price,	30 "	50 "	70 "	90 "	\$1.10	1.30

144 13 Stand Brackets—same price as Hook Plates.

145 " Close Pipe Supports—same price as Ring Plates.

145 a. " Wall Plates— " " "

146 " Movable Hook Plates for Laundry Coils—same price as Rosette Plates.

147 " Expansion Hanger (with one foot of rod) for $\frac{3}{4}$ inch, 40c; 1 inch, 45c; 1 $\frac{1}{4}$ inch, 50c; 1 $\frac{1}{2}$ inch, 55c; 2 inch, 62c; 2 $\frac{1}{2}$ inch, 70c; 3 inch, 80c.148 " Expansion Hanger for Large Pipe—3 $\frac{1}{2}$ inch, \$1.50; 4 inch, \$1 75.

149 " Triple Expansion Hanger, } Made to order.

150 " Hanger in halves,

151 " Wall Hanger,

159 15 Radiators for Walls, with Manifolds,

160 " " " Return Bends,

161 " " Corners, with Manifold Valves,

162 " " Drying Closets, with Return Bends,

Same price per foot of Pipe used as box coils (No. 165,) with additional charge for all Manifolds, per list of prices, and additional charge for difference of prices between Rosette or Movable Hook Plates and ordinary Hook Plates.

165 17

BOX COILS.

ALL MADE UP IN STANDS AND READY FOR USE, ANY NUMBER OF PIPES HIGH OR WIDE.

Length of Pipes in Coil,	2 ft.	2 ft. 3 in.	2 ft. 6 in.	3 ft.	3 ft. 6 in.	4 ft.	4 ft. 6 in.	5 ft.	6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	12 ft.
Price per foot, 1 in. Tube,	54 cts.	51 cts.	48 cts.	43 cts.	39 cts.	37 cts.	35 cts.	33 cts.	31 cts.	29 cts.	28 cts.	27 cts.	26 cts.	25 cts.
" " $\frac{3}{4}$ "	41 "	38 "	35 "	32 "	29 "	27 "	26 "	25 "	23 "	22 "	21 "	20 "	20 "	19 "

CLASS SECOND.

IRON BODY AND BRASS FITTINGS, VALVES, WITH OR WITHOUT FLANGES.

NO. PAGE.	INCHES,	1½	1½	2	2½	3	3½	4	4½	5	6	8	10	12	
43 5	Steam Valves, Iron Body, with Brass Fittings, Globe and Angle Flanged with outside screw; 2½ inches and below, with inside screw; with loose discs and spherical seats,					6½	7½	8	8½	9	10½	12½	15	17½	Dimensions, of Flanges Inches Diameter.
						9.25	10.24	11.22	12.21	13.19	15.17	19.11	23.05	27	Ins. face to face.
						4	5	5	5	6	6	8	10	10	Number of Bolts.
						½	½	¾	¾	¾	¾	¾	¾	¾	Inches size of Bolts.
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	Price each.
43a 5	Same—with screwed ends,	4.00	4.75	7.50	11.00	15.00	19.50	24.00	30.00	35.00	45.00	70.00	100.00	130.00	"
43b 5	Globe, Vertical and Horizontal Check Valves, do do do	4.00	4.75	7.50	11.00	15.00									"
43c 5	Globe Safety Valves, do do do	6.50	8.00	11.50	15.50	20.00	25.00	31.00	37.00	43.00	56.00	85.00	112.50	140.00	"
43d 5	Globe Cross Valves, do do do	4.40	5.25	8.25	12.00	16.50	21.50	26.50	33.00	38.50	49.50	77.00	110.00	143.00	"
43e "	Globe Back Pressure Valves, do do														
42 4	Transfer Valves, do do do														

FINISHED BRASS WORK.

INCHES,	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6	PRICE FOR EACH.
53 6 and 7 Patent Hydrant Cocks,	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
54 " Basin Cocks,	1.00	1.75												"
55 " Brass Bib Cocks, lever handle, screw tail,	1.25													"
56 " Brass Bib Cocks, hose screw,	1.50	1.75	2.00	3.50	4.75	6.50	8.50							"
57 " Brass Bib Cocks, plain,	1.50	1.75	2.00	3.50	4.75	6.50	8.50							"
58 " Brass Vat Cocks—made to order,	1.50	1.75	2.00	3.50	4.75	6.50	8.50							"
60 " Double Oil Cocks, (diameter of Globe,)							5.00							"
62 " Try Cocks for Purifiers,	1.75													"
63 " Oil Cups, (diameter of Bowl,)						1.55	1.65							"
64 " Brass Hinges,														"
65 " Mercury Caps,								4.00	4.50					"
66 7 Glass Water Level Indicator, . . . . .			.75											"
66a " Angle Cocks for Sugar House use—made to order,														"
80 8 Bath Tub Overflow,					2.50	2.75								"
81 " Wash Tub Waste,						2.75								"
82 " Basin Wastes and Chains, . . . . .			.40											"
83 " Bath Tub Strainers,				2.00										"
84 " Sink Wastes with Union,				2.50										"
85 " Sink Wastes with Screw,				2.00										"
86 " Malleable Iron Unions, . . . . .	.25	.35	.40	.55	.75	1.00	1.35	1.75	2.50	3.50	4.50			"
87 " Brass Unions, inside screw, . . . . .	.45	.65	.85	1.00	1.40	2.00	2.25	3.25	4.75					"
88 " Bath Boiler Unions, straight, . . . . .	.45	.65	.85	1.00	1.40	2.00	2.25	3.25	4.75					"
89 " Brass Unions, inside screw, . . . . .	.45	.65	.85	1.00	1.40	2.00	2.25	3.25	4.75					"
90 " Bath Boiler Unions, (Gooseneck,)				1.00	1.50									"
91 " Boiler Ferrule, . . . . .			.40	.45	.60									"
92 " Hose Couplings for Pavements, . . . . .				.50	.75	1.12	1.75							"
93 " Brass Steam Whistles,										11.00		14.00	18.00	25.00
94 " Fire Hose Couplings,						2.00	2.75	3.00	4.00	4.50	5.00	8.00		"
95 " Coupling Wrenches,—made to order,														"
96 " Branch Pipes,—made to order,														"
98 9 Differential Pressure Valves for Reducing the Pressure of Steam in Pipes to any requisite pressure. } Made to order.														"
99 " Combined Stop and Safety Valve,										70.00				"
100 " Copper Strainers,				3.00	3.38	4.12	5.00	6.38						"
101 " Bath Tub Overflow or Stand Pipe, with Unions.						2.50	2.75							"

CLASS THIRD.

BRASS VALVES, &c., &c.

INCHES,				$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	PRICE FOR EACH.
No PAGE.				\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
44	5a	Brass Globe and Angle Steam Valves; Loose Discs and spherical seats; above $\frac{3}{4}$ of an inch; screwed ends,			1.15	1.33	1.65	2.40	3.45	4.75	6.00	9.50	15.00	20.00	.	.	"
44b	5a	Brass Globes, Safety Valves, do do do . . . . .			.	.	3.00	4.00	5.50	.	.	.	.	.	.	.	"
45	5a	Brass Angle Valves, do do do			1.15	1.33	1.65	2.40	3.45	4.75	6.00	9.50	15.00	20.00	.	.	"
46	5a	Brass Cross Valves, do do do			1.27	1.46	1.82	2.64	3.80	5.25	6.60	10.50	16.50	22.00	.	.	"
47	5a	Brass Bath-tub Valves, do do do . . . . .			.	.	.	2.90	.	.	.	.	.	.	.	.	"
48	5a	Brass Bath-tub Valves, double, do do do . . . . .			.	.	.	3.40	.	.	.	.	.	.	.	.	"
46a	5a	Brass Corner Valves, do do do . . . . .			.	.	.	.	.	.	.	.	.	.	.	.	"
49	5a	Brass Angle Bib Valves, do do do . . . . .			.	.	.	2.00	2.90	.	.	.	.	.	.	.	"
45a	5a	Brass Angle Pressure Valves, do do do . . . . .			.	.	.	.	.	.	.	.	.	.	.	.	"
50	5a	{ Brass Horizontal and Vertical } do do do			1.05	1.20	1.50	2.20	3.10	4.30	5.40	8.65	13.50	18.00	.	.	"
50a	5a				.	.	.	.	.	.	.	.	.	.	.	.	"
51	5a	Brass Double Disc Governor Valves, do do do . . . . .			.	.	.	.	.	.	.	.	.	.	.	.	"
51a	5a	Brass Double Disc Pump Valves, do do do . . . . .			.	.	.	.	.	.	.	.	.	.	.	.	"
37	4	Lamp Cocks, . . . . .			.75	.	.	.	.	.	.	.	.	.	.	.	"
38	"	Lamp Tube, . . . . .			.	.	.	2.00	.	.	.	.	.	.	.	.	"
39	"	Brass Cocks for Steam or Water, . . . . .			.	1.00	1.50	2.20	3.00	4.20	6.00	10.50	16.50	24.00	33.00	43.50	"
39a	"	Iron Cocks " " with Brass Plugs, . . . . .			.	1.25	1.75	2.50	3.60	5.00	8.75	13.75	20.00	.	.	.	"
40	"	Iron Cocks, with or without Flanges, . . . . .			.	.80	1.00	1.40	2.00	2.60	3.50	5.50	8.50	12.50	17.50	23.50	"
41	"	Three-way Iron Cocks, . . . . .			.	.	.	.	.	.	.	.	.	.	.	.	"
39b	7	Brass Cocks with Soldering Unions, . . . . .			.	1.30	1.90	2.70	3.60	5.00	7.00	12.25	19.00	27.75	38.00	50.00	"
42a	5a	Brass Transfer Valves, . . . . .			.	.	.	.	.	.	.	.	.	.	.	.	"
59	6	Brass Swing Joints, . . . . .			.	1.25	1.50	1.75	3.25	4.25	5.50	.	.	.	.	.	"
61	"	Brass Expansion Joints, . . . . .			.	.	1.75	2.00	3.00	3.75	4.75	6.50	12.00	14.00	17.00	22.00	"
67	"	Brass Vacuum Valves, . . . . .			.	.	1.25	1.75	2.50	3.50	.	.	.	.	.	.	"
68	"	Brass Gauge Valves, loose seats, stuffing boxes with glands, } Whole length over all from end of screw to wheel, 6 8 9 $\frac{1}{2}$ inches. \$2.50 \$3.75 \$4.75 Price each. }															
69	"	Brass Gauge Cocks, loose seats, whole length, 5 inches, } Price, \$1.50 each. }															
70	"	Brass Gauge Cocks, whole length, 4 inches, price \$1.25 "															
71	"	Brass Gauge Cocks, do do 5 do do 4.50 "															
72	"	Air or Pet Cocks, . . . . .			.80	1.00	1.30	.	.	.	.	.	.	.	.	.	"
74	"	Brass Gas Meter and Service Cocks, } with Male or Female Screws, . . . . .			.	.	8.00	10.50	15.50	22.50	40.00	56.50	100.00	.	.	.	DOZEN
74	"	do do do with Unions, . . . . .			.	.	10.50	13.50	18.50	27.00	47.00	66.00	116.00	.	.	.	"
77	"	Iron Pipe Stops, all brass, . . . . .			.	.	.	1.50	2.25	3.75	4.75	7.00	.	.	.	.	EACH.
78	"	Brass Crooked Hydrant Cocks and Waste, . . . . .			.	.	1.00	1.50	2.15	.	.	.	.	.	.	.	"
79	"	Brass Straight Hydrant Cocks and Waste, . . . . .			.	.	1.00	1.50	2.15	.	.	.	.	.	.	.	"

CLASS FOURTH.

COILS, COIL SCREENS, CAST IRON PIPES, &c. &c.

No. PAGE.

152	14	Tnyere Coils,	} Any size or pattern made to order.	
153	"	Soap Coils,		
154	"	Heater Coils,		
154a	"	Heater Coils,		
155	"	Steam Gauge Coils.		
156	"	Tymp Coils.		
157	"	Flat Coils for Tanks,		
158	"	Super Heating Steam Coils,		
163	16	Ornamental Radiators for Walls,		\$35 00
164	"	Cast Iron Pedestal Radiators—three row,		125 00
	"	" " "—two row,		85 00
166	17	Screens for Covering Box Coils,		
167	17a	" " "		
168	17a	" " "		
169	17b	" " "		
168a	17b	Screens for Recess Radiator.		

COIL SCREENS, WITH MARBLE TOP. FOUR SIDES. Size in the clear, 46 inches long, 18 $\frac{3}{4}$ inches wide, 31 $\frac{1}{2}$ inches high. Gold Bronzed, \$45.
Plain Bronzed, \$41.80.

No. 2 SCREENS, WITH MARBLE TOPS. FOUR SIDES.

Size in the clear.		Gold Bronzed.	Plain Bronzed.	Size in clear.		Gold Bronzed.	Plain Bronzed.
66 $\frac{3}{4}$ in. long, 18 $\frac{3}{4}$ in. wide, 32 in. high,		\$57.00	\$52.75	45 $\frac{3}{4}$ in. long, 18 $\frac{3}{4}$ in. wide, 32 in. high,		\$43.00	\$39.80
" " 16 $\frac{3}{4}$ " " " "		55.75	51.60	" " 16 $\frac{3}{4}$ " " " "		41.75	38.65
" " 14 $\frac{3}{4}$ " " " "		54.50	50.45	" " 14 $\frac{3}{4}$ " " " "		40.50	37.50
" " 12 $\frac{3}{4}$ " " " "		53.25	49.30	" " 12 $\frac{3}{4}$ " " " "		39.25	36.35
" " 10 $\frac{3}{4}$ " " " "		52.00	48.15	" " 10 $\frac{3}{4}$ " " " "		38.00	35.20
" " 8 $\frac{3}{4}$ " " " "		50.75	47.00	" " 8 $\frac{3}{4}$ " " " "		36.75	34.05
60 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " " "		53.00	49.05	42 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " " "		41.00	37.95
" " 16 $\frac{3}{4}$ " " " "		51.75	47.90	" " 16 $\frac{3}{4}$ " " " "		39.75	36.80
" " 14 $\frac{3}{4}$ " " " "		50.50	46.75	" " 14 $\frac{3}{4}$ " " " "		38.50	35.65
" " 12 $\frac{3}{4}$ " " " "		49.25	45.60	" " 12 $\frac{3}{4}$ " " " "		37.25	34.50
" " 10 $\frac{3}{4}$ " " " "		48.00	44.45	" " 10 $\frac{3}{4}$ " " " "		36.00	33.35
" " 8 $\frac{3}{4}$ " " " "		46.75	43.30	" " 8 $\frac{3}{4}$ " " " "		34.75	32.20
54 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " " "		49.00	45.35	39 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " " "		39.00	36.05
" " 16 $\frac{3}{4}$ " " " "		47.75	44.20	" " 16 $\frac{3}{4}$ " " " "		37.75	34.00
" " 14 $\frac{3}{4}$ " " " "		46.50	43.05	" " 14 $\frac{3}{4}$ " " " "		36.50	33.75
" " 12 $\frac{3}{4}$ " " " "		45.25	41.90	" " 12 $\frac{3}{4}$ " " " "		35.25	32.60
" " 10 $\frac{3}{4}$ " " " "		44.00	40.75	" " 10 $\frac{3}{4}$ " " " "		34.00	31.45
" " 8 $\frac{3}{4}$ " " " "		42.75	39.60	" " 8 $\frac{3}{4}$ " " " "		32.75	30.30
48 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " " "		45.00	41.65	36 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " " "		37.00	34.25
" " 16 $\frac{3}{4}$ " " " "		43.75	40.50	" " 16 $\frac{3}{4}$ " " " "		35.75	33.10
" " 14 $\frac{3}{4}$ " " " "		42.50	39.35	" " 14 $\frac{3}{4}$ " " " "		34.50	31.95
" " 12 $\frac{3}{4}$ " " " "		41.25	38.20	" " 12 $\frac{3}{4}$ " " " "		33.25	30.80
" " 10 $\frac{3}{4}$ " " " "		40.00	37.05	" " 10 $\frac{3}{4}$ " " " "		32.00	29.65
" " 8 $\frac{3}{4}$ " " " "		38.75	35.90	" " 8 $\frac{3}{4}$ " " " "		30.75	28.50

CLASS FOURTH--Continued.

NO. 3 SCREENS, WITH MARBLE TOPS. FOUR SIDES.

SIZE IN THE CLEAR.	GOLD BRONZED.	PLAIN BRONZED.	SIZE IN THE CLEAR.	GOLD BRONZED.	PLAIN BRONZED.
66 $\frac{3}{4}$ in. long, 18 $\frac{3}{4}$ in. wide, 31 $\frac{1}{4}$ in. high.	\$48.00	\$43.60	60 $\frac{3}{4}$ in. long, 18 $\frac{3}{4}$ in. wide, 31 $\frac{1}{4}$ in. high.	\$44.70	\$40.60
" " 16 $\frac{3}{4}$ " " "	46.90	42.60	" " 16 $\frac{3}{4}$ " " "	43.60	39.60
" " 14 $\frac{3}{4}$ " " "	45.80	41.60	" " 14 $\frac{3}{4}$ " " "	42.50	38.60
" " 12 $\frac{3}{4}$ " " "	44.70	40.60	" " 12 $\frac{3}{4}$ " " "	41.40	37.60
" " 10 $\frac{3}{4}$ " " "	43.60	39.60	" " 10 $\frac{3}{4}$ " " "	40.30	36.60
" " 8 $\frac{3}{4}$ " " "	42.50	38.60	" " 8 $\frac{3}{4}$ " " "	39.20	35.60
54 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " 31 $\frac{1}{4}$ " "	41.40	37.60	42 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " 31 $\frac{1}{4}$ " "	35.00	31.80
" " 16 $\frac{3}{4}$ " " "	40.20	36.50	" " 16 $\frac{3}{4}$ " " "	33.90	30.80
" " 14 $\frac{3}{4}$ " " "	39.10	35.50	" " 14 $\frac{3}{4}$ " " "	32.80	29.80
" " 12 $\frac{3}{4}$ " " "	38.00	34.50	" " 12 $\frac{3}{4}$ " " "	31.70	28.80
" " 10 $\frac{3}{4}$ " " "	36.90	33.50	" " 10 $\frac{3}{4}$ " " "	30.60	27.80
" " 8 $\frac{3}{4}$ " " "	35.80	32.50	" " 8 $\frac{3}{4}$ " " "	29.50	26.80
48 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " "	38.20	34.70	39 $\frac{3}{4}$ " 16 $\frac{3}{4}$ " " "	33.30	30.25
" " 16 $\frac{3}{4}$ " " "	37.10	33.70	" " 16 $\frac{3}{4}$ " " "	32.20	29.25
" " 14 $\frac{3}{4}$ " " "	36.00	32.70	" " 14 $\frac{3}{4}$ " " "	31.10	28.25
" " 12 $\frac{3}{4}$ " " "	34.90	31.70	" " 12 $\frac{3}{4}$ " " "	30.00	27.25
" " 10 $\frac{3}{4}$ " " "	33.80	30.70	" " 10 $\frac{3}{4}$ " " "	28.90	26.25
" " 8 $\frac{3}{4}$ " " "	32.70	29.70	" " 8 $\frac{3}{4}$ " " "	27.80	25.25
45 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " 31 $\frac{1}{4}$ " "	36.60	33.25	36 $\frac{3}{4}$ " 18 $\frac{3}{4}$ " " "	32.00	29.10
" " 16 $\frac{3}{4}$ " " "	35.50	32.25	" " 16 $\frac{3}{4}$ " " "	30.90	28.10
" " 14 $\frac{3}{4}$ " " "	34.40	31.25	" " 14 $\frac{3}{4}$ " " "	29.80	27.10
" " 12 $\frac{3}{4}$ " " "	33.30	30.25	" " 12 $\frac{3}{4}$ " " "	28.70	26.10
" " 10 $\frac{3}{4}$ " " "	32.20	29.25	" " 10 $\frac{3}{4}$ " " "	27.60	25.10
" " 8 $\frac{3}{4}$ " " "	31.10	28.25	" " 8 $\frac{3}{4}$ " " "	26.50	24.10

Screens of THREE SIDES, and any other size than the above, made to order. Ten per cent. to be deducted from these prices for Three Sided Screens.

WHEEL REGISTERS.

Customers ordering, will please use the description given on the List in describing the kinds wanted.

SIZE OF OPENING.	No. 1, BEST BLACK.	*VENTILATORS WITH FIXTURES FOR CORDS.	WHITE ENAMELED.	FANCY ENAMELED.	GOLD BRONZED.	LEAF PLATED.	IRON BORDER FRAMES.	
							BRONZED.	BLACK.
4 $\frac{1}{2}$ by 6 $\frac{1}{2}$ inches, each,	\$1.20	\$1.40	\$2.50	\$3.50	\$1.70	\$5.75		
4 by 10 " " "	1.50	1.70	3.30	4.40	2.00	6.50		
4 by 15 " " "	2.10	2.30	4.00	5.25	2.70	9.00		
4 by 18 " " "	2.25	2.45	4.30	5.50	2.80	10.00		
6 by 8 " " "	1.60	1.80	3.30	4.40	2.10	7.25	\$1.00	\$0.75
6 by 10 " " "	1.80	2.00	3.75	4.90	2.35	8.75	1.15	.94
6 by 14 " " "	2.40	2.60	4.50	5.75	3.00	11.50	1.30	1.00
6 by 18 " " "	3.00	3.20	5.25	6.50	3.60	13.50	1.60	1.30
8 by 18 " " "	3.50	3.75	6.00	7.25	4.10	16.25	1.80	1.50
12 by 12 " " "	3.80	4.00	6.50	7.75	4.50	16.75	1.60	1.30
10 by 10 " " "	2.80	3.00	5.00	6.25	3.40	12.50	1.40	1.10
8 by 8 " " "	2.00	2.20	4.00	5.10	2.60	9.25	1.20	.95
8 by 10 " " "	2.20	2.40	4.20	5.40	2.75	10.00	1.30	1.00
8 by 12 " " "	2.50	2.70	4.60	5.80	3.10	11.75	1.40	1.10
9 by 14 " " "	3.25	3.45	5.50	6.75	3.90	14.80	1.60	1.20
10 by 14 " " "	3.75	3.95	6.00	7.50	4.40	17.00	1.80	1.40
10 $\frac{1}{2}$ by 16 $\frac{1}{2}$ " " "	4.40	4.60	6.75	8.25	5.10	20.00	2.00	1.55
12 by 19 " " "	5.25	5.50	7.75	9.25	6.20	26.50	2.25	1.80
14 by 22 " " "	7.25	7.50	10.00	12.00	8.25	.	2.80	2.30
15 by 25 " " "	8.30	8.75	13.00	15.00	10.25	.	3.50	3.00
20 by 26 " " "	12.00	12.50	18.00	.	14.00	Soap Stone in Strips, 20 by 26, \$3.75 (Net.)		
30 by 30 " " "	25.00	(Large size, for Stores and Public Buildings)			.	.	" " " 30 by 30, 5.00 "	

8 by 10 and 8 by 12, with heavier Tops, for Floors, same price as above.

* If Oblong Ventilators are wanted to stand endwise, persons will note the fact in ordering, otherwise they will be sent to be used the other way.

CLASS FOURTH.--Continued.

GRATE OR FIREPLACE REGISTERS. TOPS CIRCULAR.

SIZE OF OPENING.	No. 1. BEST BLACK.	VENTILATORS WITH FIXTURES FOR CORDS.	WHITE ENAMELED.	FANCY ENAMELED.	GOLD BRONZEO.	LEAF PLATED.
11 by 13 inches each, . . .	\$3.25	\$3.50	\$5.60	\$6.80	\$3.90	\$15.00
13 by 15 " " . . .	4.25	4.50	6.50	7.80	4.90	19.00
16 by 17 " " . . .	5.75	6.00	8.50	9.80	6.50	26.00
8 by 14 " " . . .	2.80	With Star Centre.	5.20	6.25	3.40	13.50
9 by 12 " " . . .	2.75		5.20	6.20	3.30	12.00
10 by 14 " " . . .	3.25		5.40	6.60	3.90	14.00
12 by 17 " " . . .	4.50		7.25	8.50	5.25	22.00
8 by 14 " " . . .	2.80		3.05	. . .	3.40	} New Patterns, Curved Top—very Ornamental for Ventilators.
9 by 12 " " . . .	2.75	3.00	. . .	. . .	3.30	
10 by 14 " " . . .	3.25	3.50	. . .	. . .	3.90	

RAISED TOP VENTILATORS, with Fixtures for Cords. 6 by 8 White Japanned, \$1.90, White Enameled, \$3.50, Fancy Enameled, \$4.60
 " " " " " " 6 by 10 " " 2.10, " " 4.00, " " 5.20
 " " " " " " 8 by 10 " " 2.50, " " 4.50, " " 5.75
 " " " " " " 8 by 12 " " 2.80, " " 5.00, " " 6.25

ROUND REVOLVING REGISTERS. 10 inches, \$0.85—Soap Stone, \$0.90. Net prices.

" " " " 12 " .96— " " 1.20. "
 " " " " 14 " 1.35— " " 1.50. "
 " " " " 16 " 1.75— " " 2.00. "

CAST IRON FLUE DAMPERS, for Hot Air Flues. 4 by 6 inches in the opening. Net prices,

" " " " 4 by 9 " " " " \$0.24
 " " " " 4 by 12 " " " "30
 " " " " 6 by 9 " " " "42
 " " " " 6 by 12 " " " "54
 " " " " 9 by 9 " " " "62

TWO FAN REGISTERS. *A New Article.*

	REGISTERS, BLACK OR WHITE.	VENTILATORS, BLACK OR WHITE.	GOLD BRONZED REGISTERS AND VENTILATORS.	EXTRA VENTILATORS, FULL GILT, TO ORDER.
5 inches, round, each, . . .	\$0.80	\$0.80	\$1.10	
6 " " " . . .	1.00	1.00	1.40	
7 " " " . . .	1.10	1.10	1.50	\$4.75
8 " " " . . .	1.40	1.40	1.80	5.00
10 " " " . . .	2.00	2.00	2.50	5.75

PATENT LOCK OF ASYLUM REGISTERS, operated by a key, 10 by 9 inches, \$2.80
 " " " " 10 by 12 " " 3.60
 " " " " 10 by 16 " " 4.50
 " " " " 10 by 20 " " 5.50

	REGISTERS, BLACK OR WHITE.	REGISTERS, PLATED CENTRES.	VENTILATORS, WITH FIXTURES FOR CORDS.
5 inches, round, . . .	\$0.94	\$1.10	\$0.94
6 " " . . .	1.20	1.35	1.20
7 " " . . .	1.30	1.45	1.30
8 " " . . .	1.60	1.80	1.60
9 " " . . .	2.00	2.20	2.00
10 " " . . .	2.25	2.50	2.25
12 " " . . .	2.80	3.00	2.80
4 by 8 inches, square, . . .	1.20	1.35	1.20
5 by 8 " " . . .	1.45	1.60	1.45
8 by 8 " " . . .	2.00	2.20	2.00

CLASS FOURTH.—Continued.

EIGHT FAN REGISTERS, WITH PLATED STAR CENTRES.

	No. 1, BEST BLACK.	WHITE ENAMELED.	FANCY ENAMELED.	VENTILATORS, WITH FIXTURES FOR CORDS.	GOLD BRONZED.	LEAF PLATED.	IRON BORDER FRAMES.	
							BRONZED.	BLACK.
10 inches, round or octagon,	\$3.00	\$5.25	\$6.50	\$3.25	\$3.50	\$11.00	\$1.25	\$1.00
12 " " "	4.00	6.50	7.75	4.25	4.50	15.00	1.50	1.20

SQUARE REGISTERS, WITH PLATED STAR CENTRES.

	No. 1, BEST BLACK.	WHITE ENAMELED.	FANCY ENAMELED.	VENTILATORS, WITH FIXTURES FOR CORDS.	GOLD BRONZED.	LEAF PLATED.	IRON BORDER FRAMES.	
							BRONZED.	BLACK.
6 by 10 inches, each,	\$2.00	\$4.00	\$5.10	.	\$2.50	\$9.00	\$1.20	\$0.94
8 by 10 " "	2.30	4.60	5.80	.	2.50	10.00	1.30	1.00
8 by 12 " "	2.70	4.90	6.10	.	3.30	12.00	1.40	1.10
9 by 14 " "	3.50	6.00	7.25	.	4.20	15.00	1.60	1.20

ROUND REGISTERS, WITH SLIDE CENTRES.

	No. 1, BEST BLACK.	WHITE ENAMELED.	FANCY ENAMELED.	VENTILATORS, WITH FIXTURES FOR CORDS.	GOLD BRONZED.	LEAF PLATED.	IRON BORDER FRAMES.	
							BRONZED.	BLACK.
8 inches,	\$1.50	\$3.30	\$4.40	\$1.70	\$2.00	\$8.00	\$1.00	\$0.75
9 " "	1.80	3.80	5.00	2.00	2.35	9.25	1.10	.85
10 " "	2.20	4.30	5.50	2.45	2.80	11.00	1.25	1.00
12 " "	2.90	5.30	6.50	3.20	3.50	14.00	1.50	1.20
14 " "	3.60	6.20	7.50	3.90	4.30	17.50	1.80	1.50
16 " "	4.80	7.75	9.25	5.10	5.50	22.00	2.20	1.80
18 " "	5.75	8.50	10.00	6.10	6.50	.	2.80	2.40
20 " "	6.75	9.50	11.00	7.10	7.60	.	3.60	3.10
24 " "	9.00	15.00	.	10.00	11.00	.	.	.

No. PAGE.

		CEILING VENTILATORS, for Large Halls and Churches, 36 inch diameter, bronzed,							\$10.00
		" " " " " 60 " "							18.00
		ORNAMENTAL PEDESTAL REGISTERS, with Valves, 16 by 16 inches at base, bronzed, marble tops,							16.50
		" " " " " 21½ by 16 " "							20.50
		" " " " " 21½ by 21½ " "							25.50
		CAST IRON FLUE DAMPERS, (Oval,) 4 by 9 inches, Net prices,							.90
		" " " " " 4 by 12 " "							1.00
		" " " " " 4 by 14 " "							1.13
		SMOKE PIPE REGISTERS, 6 inches,							2.25
		" " " " " 7 " "							2.25
		" " " " " 8 " "							2.25
		ORNAMENTAL SCREENS, for Enclosing Coils of Steam Pipes, any length or width. Without Marble Tops—running measure in the clear.							
		Best Gold Bronze, per foot,							3.00
		Best Green " "							2.50
		Marble Tops, 1 inch thick, O. G. Edge, per square foot,							1.10
167	18	Double Acting Force and Lift Pump, 3 inch bore and 14 inch stroke. Finished,							150.00
		" " " " " " Plain,							125.00
168	"	Hot Water Tanks, with Coil. Furnished to order.							
168½	"	Hot Water Tank. Furnished to order.							
169	"	Cold Water Tanks, with Ball Cocks. Furnished to order.							
170	"	Battlement Bracket, 36 by 10 inches,							3.25
170½	"	Battlement Bracket.							
171	19	Horizontal Tubular Boiler, with Fire-Box. Made and put up to order.							

CLASS FOURTH.—*Continued.*

No. Page.

172 19

VERTICAL TUBULAR BOILERS.

DIAMETER.	LENGTH.	NUMBER OF FLUES.	HEATING SURFACE.	PRICE.
20 inches.	4 feet.	19—2 inches.	28 square feet.	\$125.00
24 "	4 "	19—2 "	30 "	150.00
24 "	5 feet 3½ inches.	19—2 "	42 "	162.50
28 "	5 "	37—2 "	72 "	185.00
28 "	6 "	37—2 "	92 "	200.00
32 "	5 "	43—2 "	80 "	250.00
32 "	6 "	43—2 "	103 "	350.00
32 "	10 "	43—2 "	192 "	500.00
36 "	5 "	61—2 "	98 "	350.00
36 "	6 "	61—2 "	130 "	400.00
36 "	8 "	61—2 "	196 "	450.00
36 "	10 "	61—2 "	257 "	550.00
40 "	8 "	66—2 "	198 "	550.00
40 "	10 "	66—2 "	269 "	600.00

173 19 BATH BOILERS, Plain or Galvanized. Circulating or Back Log.

LIST OF PRICES.

SIZE.	NUMBER OF GALLONS.	PRICE OF PLAIN.	PRICE OF GALVANIZED.
5 feet by 12 inches.	27 gallons.	\$14.50	\$22.25
5 " " 10 "	17 "	12.50	18.10
4 " " 12 "	22 "	12.50	19.00
4 " " 10 "	13 "	10.50	15.10
3 " " 12 "	16 "	10.50	15.10
3 " " 10 "	10 "	9.00	12.40
4 " " 14 "	30 "	15.00	22.70
5 " " 14 "	36 "	17.50	27.05
5 " " 16 "	49 "	21.00	32.65
6 " " 14 "	45 "	20.00	30.35
6 " " 12 "	32 "	16.50	25.20
6 " " 16 "	60 "	26.50	40.50
6 " " 18 "	75 "	28.50	44.60
4 " " 16 "	40 "	21.50	34.20
6 " " 24 "	190 "	38.50	60.00
4 " " 6 "	5 "	6.50	9.10

Bath-Boiler Connections extra.

For BACK LOG BOILERS, 1 inch Coupling, consisting of 1 Gooseneck, 1 Ferrule, and 4 foot Tube, at \$3.10
 For CIRCULATING BOILERS, 1 " " " 2 " 2 " " 4 " " " 5.60

174 19 Hot Water Backs. See No. 189, page 26.

175 20 Boiler Fronts, 18 feet by 9 feet 6 inches, without Grate Bars, at \$168.50
 " " " " " " with 80 Grate Bars, each 4 feet 6 inches, and 2 bearing bars for } Any size made to order.
 same, at 327.00

CLASS FOURTH.—*Continued.*

No.	Page.	
175½	20	Tubular Boilers, with Steam Drum,
176	"	Horizontal Tubular Boilers, without Fire Box,
177	21	Artesian, or other Well Pumps,

} Any capacity made and put up to order.

178 "

WORTHINGTON STEAM PUMPS. PRICE LIST.

Numbers designating sizes.	Diameter of Steam Cylinder in inches.	Diameter of Plunger in inches.	Length of Stroke in inches.	Capacity in Gallons per minute.	Price.
No. 1.	3½	2½	3	10	\$ 75.00
" 2.	5	3	6	30	150.00
" 3.	6½	4½	9	75	225.00
" 4.	12	6	9	135	325.00
" 5.	12	7	9	185	325.00
Second Pattern " "	16	7	9	185	350.00
" 6.	12	10½	9	400	400.00
do do " "	16	10½	9	400	425.00
Third do " "	18½	10½	9	400	450.00
" 7.	12	14	9	600	525.00
Second do " "	16	14	9	600	550.00
Third do " "	18½	14	9	600	600.00

N. B.—In case of fire or other emergency, the delivery above stated may be increased to double the quantity.

179 21

WOODWARD STEAM PUMPS.

This Pump is used for supplying Steam-Boilers, Mills, and Public Buildings with water.

In case of fire, it is arranged to discharge any quantity of water, according to size, by simply opening a valve connected to the discharge-outlet. It can also be used for driving a fan or light machinery.

PRICE LIST.

Number.	Diameter of Steam Cylinder in inches.	Diameter of Water Cylinder in inches.	Gallons Discharged per minute.	Price.
1	4	2	8 to 12	\$100.00
2	5	2½	26 " 39	150.00
3	7	3½	52 " 78	250.00
4	9	5	85 " 120	350.00
5	12	7	107 " 240	400.00
6	12	9	276 " 331	475.00
7	16	9	414 " 518	550.00
8	18	12	736 " 900	650.00
9	20	14	900 " 1200	900.00
10	22	16	1500 " 1800	1100.00
11	24	18	1700 " 2000	1300.00
12	26	20	2000 " 2500	1500.00

CLASS FOURTH.—Continued.

STEAM FITTINGS—HOTEL ARRANGEMENTS, &c.

No.	Page.		
187	26	Cooking Range, for Hotels, &c. Furnished to order.	
188	"	Broiling Oven, 8 feet 8 inches by 4 feet,	\$75.00
189	"	Hot Water Backs, 14 inches long, 3½ inches deep, by 8 inches wide,	3.00
		" " 16½ " 4½ " 12 " "	7.25
		" " 19 " 4½ " 14 " "	8.25
		" " 24 " 4½ " 14 " "	12.00
190	"	Hot Water Cylinder, 20 inches outside, 15 inches inside, 10½ inches deep,	14.00
191	"	Hot Water Box, 29 by 20 inches outside, 20 by 10½ inches inside, 11 inches deep,	25.00
192	27	Rotary Roaster, large size,	150.00
		" " small size,	100.00
193	"	Rinsing Tub. Any size made to order.	
194	"	Boiling Tub. " " "	
195	"	Round Tin Steamers, 16 by 15 inches,	13.50
		Oval Tin Steamers, 17 by 23 inches,	14.50
196	"	Wash Tubs. Any size made to order.	
197	28	Force and Lift Pumps,	12.00
198	"	Steam Traps, 7 inches diameter, 1 inch or ¾ inch,	12.00
199	"	Lard Kettle, 3 feet 3 inches by 19½ inches. Sixty gallons capacity,	15.00
200	"	Clothes Wringer. Large size for power,	350.00
		Hand Wringer,	150.00
201	"	Double Steam Kettles. 80 gallons,	90.00
		" " " 65 " "	75.00
		" " " 47 " "	60.00
202	29	Shaker Washing Machines, with four tubs for power,	325.00
		" " " with six tubs for power,	450.00
		" " " with eight tubs for power,	500.00
203	"	DRYING CLOSETS, FOR HOTELS, &c. Constructed to order.	
203a	29a	Mangle,	110.00
203b	29a	Steam Table for Warming Soup, Coffee, Tea and milk:	
		For Soup, 2 eight gallon Cast-Iron Enameled Kettles,	
		" Coffee, 1 " " Copper, Stone-lined "	
		" Black Tea, 1 seven " " " "	
		" Green Tea, 1 four " " " "	400.00
		" Milk, 1 three " " " "	
204	30	STEAM CARVING TABLE AND DISHES, WITH PLATTERS AND COVERS.	
		For Table 17 feet 10 inches long, with 16 Dishes, Platters and Covers, Slab and Frame, complete,	326.00

STEAM CARVING DISHES, WITH PLATTERS AND COVERS.

NO.	FOR WHAT ADAPTED.	SIZE.	PRICE.	PRICE.	PRICE.	TOTAL.
		Diameter.	Dish.	Platter.	Cover.	
1.	Roast Beef, Roast and Boiled Turkey, &c.	22½ by 15½ inches.	\$11.00	\$7.50	\$6.50	\$25.00
2.	Corned Beef, Roast Goose, &c.	19½ by 14½ "	8.50	6.00	5.50	20.00
3.	Mutton, Chickens, &c.	17½ by 12½ "	6.00	5.50	4.50	16.00
4.	Various Small Dinner and Breakfast Dishes; Tea, Coffee, Hot Water, &c.	15 by 9 "	4.00	4.50	3.50	12.00

For Table 17 feet 10 inches long, the following sizes are used.

2 of No. 1, at \$25.00. 4 of No. 2, at \$20.00. 2 of No. 3, at \$16.00. 8 of No. 4, at \$12.00.

For Table 12 feet long, the following sizes are used. Price, complete, with slab and frame, \$242.00

2 of No. 1, at \$25.00. 3 of No. 2, at \$20.00. 1 of No. 3, at \$16.00. 4 of No. 4, at \$12.00.

GAS FITTINGS.—PLUMBERS' MATERIALS, &c.

205	31	Gooseneck, 4 inches,	\$4.25
		" 3 " "	3.50
206	"	Fire Plug, without Case,	18.00
207	"	Fire Plug Case, fitted,	7.00

CLASS FOURTH.—*Continued.*No. PAGE.
208 31

GAS DRIPS. TABLE OF PRICES.

SIZE PIPE CONNECTIONS.	DIAMETER.	DEEP.	PRICE WITH SEAL.	PRICE WITHOUT SEAL.
12 inches.	16 inches.	36 inches.	\$27.00	\$26.00
10 "	16 "	36 "	24.00	23.00
8 "	14 "	27 "	18.00	17.00
6 "	14 "	27 "	15.00	14.00
4 "	10 "	27 "	11.00	10.00
3 "	10 "	27 "	10.00	9.00
2 "	7 "	19½ "	6.00	5.50
1½ "	7 "	19½ "	5.00	4.50

- 209 " Gas Stops. Long or short pattern.
 210 " Water Stops. Long or short pattern.
 211 " Gas or Water Street Stop Cases, 4 feet high, 16 by 18 inches at top, \$15.00

PRICES FOR STOP VALVES FOR GAS AND WATER COMPOSITION SURFACES AND SCREWS.

INCHES.	3	4	6	8	10	12	16	20	24	30
209a 31a Stop Valves, Inside Screw, . . .	\$18.00	\$20.00	\$26.50	\$36.00	\$50.00	\$75.00	\$106.50	\$160.00	.	.
210a 31a Stop Valve, Outside Screw, . .	22.50	25.00	33.00	45.00	61.00	81.00	133.00	200.00	\$290.00	\$150.00

12 inches and above have Geared Nuts, as shown on figure 210b. All Iron Valves for Gas, at 10 per cent. discount from above prices.

- 209b 31a Hydrant Valve,
 210b 31a Stop Valve, 30 in. Flanged Ends, $\frac{1}{8}$ full size. Composition Surfaces and Screws, Valves fitted by lathe-work, Flanged ends Geared, above 12 inches, made to order.

212 32

CAST IRON GAS OR WATER MAIN.

All proved under Hydraulic pressure, 300 lbs. per square inch.

INSIDE DIAMETER.	LENGTHS.	WEIGHT PER LENGTH.	EXTRA LENGTHS.	WEIGHT EXTRA LENGTHS.	PRICE PER FOOT.
12 inches.	9 feet.	640 lbs.	12 ft., 4.24 in.	863 lbs.	Depends on the Iron Market.
10 "	9 "	487 "	12 " 4.08 "	656 "	
8 "	9 "	355 "	12 " 3.92 "	476 "	
6 "	9 "	241 "	12 " 3.76 "	322 "	
4 "	9 "	145 "			
3 "	9 "	104 "			
2½ "	8 "	65 "			
2 "	6 "	40 "			
1½ "	6 "	30 "			

- 213 " Double Branches,
 214 " Single Branches,
 215 " Bends,
 216 " Bevil Hubs,
 217 " Reducing Pipes,
 218 " Lateral Branches,
 219 " Sleeves,
 220 " Double Hubs,
 221 " Angle Bends,
 222 " Caps or Plugs,
 223 33 Showing Plan of Water Closet Arrangements. Any size made to order.
 223½ " Plan of Water Closet Arrangements.
 224 } 34 Single Soil Branches, 8 inches, \$12.00
 225 } " " 6 " 10.50
 " " 4 " 9.50
 226 " Double Soil " 8 " 15.00
 " " 6 " 14.00
 " " 4 " 13.50
 227 " Reservoir Valve, with Strainer, 4 inches, 5.00

Any pattern made to order. Standard sizes always on hand. Price depends on the Iron Market.

CLASS FOURTH.—*Continued.*

PAGE.		CENSI FORN CONTINUED.				
228	34	Bath Tubs, with Feet and Waste and Overflow.	No. 1, 22 inches wide, 22 inches deep, 5 feet 6 inches long,			\$18.00
		"	No. 2, 22 by 15 inches wide, 22 inches deep, 5 feet 4 inches long,			15.00
		"	No. 3, 21 by 15 inches wide, 18 inches deep, 5 feet long,			12.80
		"	without Waste and Overflow. No. 1, 22 inches wide, 22 inches deep, 5 feet 6 inches long,			16.00
		"	No. 2, 22 by 15 inches wide, 22 inches deep, 5 feet 4 inches long,			13.00
		"	with Feet, without Waste and Overflow. No. 3, 21 by 15 inches wide, 18 inches deep, 5 feet long,			10.80
		"	Supply and Waste. New pattern for Asylums, &c.,			11.30
229	"	Wash Basins, No. 1, with Feet and Waste,				3.00
		"	"	1 Cock and 1 Pedestal,		4.24
		"	"	2 Cocks and 2 Pedestals,		5.50
		"	"	Painted,		3.25
		"	"	1 Cock and 1 Pedestal,		4.50
		"	"	2 Cocks and 2 Pedestals,		5.80
		"	"	Enameled,		5.25
		"	"	1 Cock and 1 Pedestal,		6.75
		"	"	2 Cocks and 2 Pedestals,		8.30
		"	"	and Painted,		5.50
		"	"	1 Cock and 1 Pedestal,		7.00
		"	"	2 Cocks and 2 Pedestals,		8.75
230	"	Slop Hopper, with Lid.	Enameled and Painted,			11.00
231	"	Soil Pans,	Painted, \$2.62. Enameled, \$4.00. Plain, \$2.50. Wood or Iron Seat, \$1.			
232	35	large Pattern.	1.38.	3.00.	1.25.	
233	"	with Flanges.	1.38.	3.00.	1.25.	
234	"	plain Pattern.	1.38.	3.00.	1.25.	
235	"	Urinal Pans,	1.38.	3.00.	1.25.	
236	"	Urinal, with Branch,				7.25
237	"	Half Circle Urinals,				2.50
238	"	Two Basin Sinks, 3 feet 11 inches by 21 inches, by 4½ inches deep.	Plain Castings,			3.25
239	"	Corner Sinks, 2 feet 7 inches by 9 inches, by 7 inches deep.	Plain Castings,			1.52
		"	28 inches by 9 inches deep.	Plain Castings,		1.25
		"	23 inches by 8½ inches deep.	Plain Castings,		1.25
240	"	Wash Bowl, 12 inches diameter.	Enameled or Galvanized,			2.25
241	"	Round Cornered Sinks, 3 feet 6 inches by 16 inches, by 4½ inches deep.	Plain Castings,			1.75
		"	4 feet 6½ inches by 16 inches, by 4½ inches deep.	"		2.00
		"	24½ inches by 16 inches, by 4½ inches deep.	"		1.00
242	"	Sink, with Overflow, 29 inches by 20 inches, by 5½ inches deep.	"			2.00
		Round Cornered Sinks, 3 feet 7½ inches by 21 inches, by 5½ inches deep.	"			3.00
		"	42½ inches by 21 inches, by 5½ inches deep.	"		3.25
		"	36 inches by 22 inches, by 7 inches deep.	"		2.50
		"	33½ inches by 21¾ inches, by 5½ inches deep.	"		2.25
		Galvanized, extra, to be added to weight of Sinks, at per lb.,				.05
		Round Cornered Sinks, 27 inches by 17½ inches, by 5½ inches deep.	Plain Castings.			2.00
		"	24 inches by 17½ inches, by 5½ inches deep.	"		1.50
		"	23 inches by 18 inches, by 4 inches deep.	"		1.12
		"	20½ inches by 16 inches, by 4½ inches deep.	"		.90
		"	24½ inches by 17½ inches, by 4 inches deep.	"		1.50
243	"	Large Square Cornered Sinks, 6 feet by 22 inches, by 6 inches deep.	"			8.50
244	36	Box Drain Trap. Connections for 6 or 8 inches, 26½ inches by 16½ inches, by 14½ inches deep,				7.00
		"	Connections for 3 or 4 or 5 inches, 20½ inches by 13½ inches, by 13½ inches deep,			4.50
245	"	Belly Trap, 8 inches, plain,				9.36
		"	6			5.85
		"	4			4.00
246	"	1½ inches, with Lid and Bridle to clean, fitted,				1.15
		"	1			1.15
		"	4			5.75
		"	6			8.75
		"	8			12.50
247	"	Lateral Branch Box Trap. Connections for 6 or 8 inches, 24 by 14¾ by 9 inches deep,				12.00
248	"	Right Angle Box Trap. Connections for 8 inches, 20 by 20 by 11½ inches deep,				12.00
249	"	Soil Pan Trap. Connections for 4 inches, 12½ by 9, by 5 inches deep,				2.50
		Right Angle Box Trap. Connections for 4 inches, 14 by 10, by 7 inches deep,				6.50</

CLASS FOURTH.—*Continued.*

No.	PAGE.		
285	40	PLAN OF GREEN-HOUSE, WITH BOILER AND PIPES COMPLETE. These arrangements furnished to order.	
286	41	Wide Pattern Roller Pipe Stand, 15 inches high, 1 inch roller, 17 inches at top, $9\frac{1}{2}$ inches at bottom,	\$2.87
287	"	Narrow " " 15 " 1 " $11\frac{1}{2}$ " " $6\frac{1}{2}$ " "	1.75
288	"	Expansion Pipe Stand, $2\frac{1}{2}$ inch roller, 2 feet, $8\frac{1}{2}$ inches long,	3.50
"	"	" " $2\frac{1}{2}$ " 1 foot $7\frac{1}{2}$ " "	3.00
289	"	G. H. Throttle Valve, 4 inches,	5.00
"	"	" " 3 " "	4.00
290	"	G. H. Screw Valve, 4 inches,	6.50
291	"	G. H. Double Branch Rib Boiler, 20 inches, fitted. Length of 4 inch pipe for which it is adapted, 500 feet,	30.00
292	"	G. H. Single Branch Rib Boiler, 16 inches, fitted, " 4 " " 320 "	18.00
293	"	G. H. Double Branch Corrugated Boiler, 28 inches, fitted, " 4 " " 980 "	63.00
294	"	D. Pattern G. H. Boiler. Large size, " 4 " " 750 "	100.00
295	42	Smoke Conductor, 3 by 12 inches, in 6 feet 4 inch lengths, at per foot,	1.00
296	"	" " $12\frac{3}{4}$ by 7 inches, in 9 feet lengths, at per foot,	1.55
297	"	Chimney Top, 6 feet high, 14 inches at top, $21\frac{1}{2}$ inches at bottom,	15.00
298	"	" " $16\frac{1}{2}$ inches at top, $16\frac{1}{2}$ inches at bottom,	5.50
299	"	" " $30\frac{1}{2}$ inches high, $9\frac{1}{2}$ inches at top, $11\frac{1}{2}$ inches at bottom,	6.50
300	"	" " 18 inches at top, 18 inches at bottom,	5.50
301	43	" " 4 feet $2\frac{1}{2}$ inches square, with Corner Pieces,	50.00
302	"	G. H. Double Hub with Outlet, 4 inches,	1.90
303	"	G. H. Pipe with Evaporator, 4 inches, in 9 feet lengths, per foot,	.40
"	"	" " 3 " " " "	.29
304	"	" " 4 inches, in 9 feet lengths, per foot,	.36
"	"	" " 3 " " " "	.25
305	"	G. H. Bend, 4 inches,	1.00
"	"	" " 3 inches,	.60
306	"	G. H. Bevil Hub, 4 inches,	1.30
307	"	G. H. Single Branch, 4 inches,	1.50
"	"	" " 3 " "	1.00
308	"	G. H. Double Branch, 4 inches,	1.85
309	"	G. H. Double Hub with Outlet, 4 inches,	1.70
310	"	G. H. Double Hub Angle Bend, 4 inches,	1.50
311	"	G. H. Return Bend, close pattern, 4 inches,	1.20
"	"	" " 3 " "	.75
"	"	" " medium pattern, 4 inches, (3 inches apart,) "	1.40
"	"	" " wide pattern, 4 inches, (6 inches apart) "	1.75
312	44	G. H. Return Hub, 4 inches,	3.25
313	"	Lateral Branch, 4 inches,	1.50
314	"	Angle Bend, G. H.,	
315	"	G. H. H. Branch, 4 inches,	3.00
316	"	G. H. Return Hub, 4 inches,	3.25
317	"	G. H. Three Branch, 4 inches,	3.00
318	"	G. H. Two Branch, 4 inches,	2.75
319	"	G. H. U. Branch, 4 inches,	1.25
320	"	G. H. Reducing Pipe, 4 by 3 inches,	1.00
321	"	G. H. Flange Hub, 4 inches,	1.62
322	"	G. H. Sleeve, 4 inches,	.65
"	"	" " 3 " "	.40
323	"	G. H. Plug, 4 inches,	.40
324	"	G. H. Cap, 4 inches,	.50
325	"	High Pattern Roller Pipe Stand, 25 inches high, 1 inch rollers, 17 inch top, $9\frac{1}{2}$ inches at bottom,	3.50
326	45	Sylvester Door and Frame, or Fire Front, with Sliding Doors. Frame, 3 feet by 29 inches. Openings, $10\frac{3}{4}$ by 12, $10\frac{3}{4}$ by $8\frac{3}{4}$ inches. Fitted,	15.00
327	"	Man Hole Doors. Frame, $20\frac{1}{2}$ by $58\frac{1}{2}$ inches. Opening, 4 feet 6 inches by $16\frac{1}{2}$ inches. Fitted,	6.00
328	"	" " " 29 by $19\frac{1}{2}$ " " 22 by $14\frac{1}{2}$ inches. Fitted,	3.50
329	"	Flue Door. " 8 by 8 " " $5\frac{1}{2}$ by $5\frac{1}{2}$ " "	.75
330	46	Bake Oven Door. " $28\frac{1}{2}$ by 14 " " $21\frac{1}{2}$ by 12 " "	6.00
331	"	Flue Door. " $16\frac{1}{2}$ by $16\frac{1}{2}$ " " $11\frac{1}{2}$ by $11\frac{1}{2}$ " "	2.25
332	"	Bake Oven Door. " $31\frac{1}{2}$ by $23\frac{1}{2}$ " " $23\frac{1}{2}$ by 17 " "	7.50
333	46	Flue Door. " $15\frac{3}{4}$ by $13\frac{3}{4}$ " " $9\frac{3}{4}$ by $9\frac{3}{4}$ " "	1.50
334	"	Bake Oven Door. " $24\frac{1}{2}$ by 14 " " $18\frac{3}{4}$ by 12 " "	4.50

CLASS FOURTH,—*Continued.*

[illegible]

CAST IRON PIPE WITH FACED FLANGES.

Finished with Bolts and Nuts, suitable for Steam Work; proved to 300 pounds pressure per square inch, and intended for 75 pounds working pressure per square inch.

Internal Diameter.	Thickness of Iron of body.	Diameter of Flanges Outside.	Diameter of Centre of Holes for Bolts.	Number of Bolts.	Diameter of Bolts.	Length of each piece of Straight Pipe.	Weight of each whole length.	Price per foot of Length.	Price which is to be added to each length for the pair of ends with bolts.
3 inches.	0.328 in.	6½ in.	5.24	4	½ in.	8.0 feet.	93 pounds.	\$0.28	\$1.17
3½ "	0.341 "	7¼ "	5.77 5.90	4 or 5	⅞ or ½ "	8.0 "	112 "	0.33	1.34
4 "	0.354 "	8 "	6.43	5	⅞ or ½ "	8.0 "	121 "	0.39	1.50
5 "	0.380 "	9 "	7.49 7.62	5 or 6	⅞ or ½ "	8.0 "	173 "	0.52	1.75
6 "	0.406 "	10¼ "	8.68	6	⅞ or ½ "	11.0 "	297 "	0.66	2.00
8 "	0.458 "	12½ "	10.8	8	⅞ or ½ "	11.0 "	442 "	1.00	2.75
10 "	0.510 "	15 "	13.18	10	⅞ or ½ "	11.0 "	614 "	1.37	4.00
12 "	0.526½ "	17¾ "	15.56 15.30	10 or 12	⅞ or ½ "	11.0 "	816 "	1.76	5.75
16 "	0.667 "	24 "	18.8	14	⅞ or ½ "	11.0 "	1314 "	2.84	10.50

360	"	Cast Iron Flange Bends,	} At 3 cents per pound, plus the list price for the Flanged Ends with Bolts.
361	"	" " " Single Branches,	
362	"	" " " Double Branches,	

CLASS FOURTH.—*Continued.*

[illegible]

CLASS FOURTH.—*Continued.*

No.	PAGE.		
486	79	Poker,	
487	"	Chisel Bar,	} \$15.00
488	"	Retort Scraper,	
489	"	Tongs,	
490	"	Coke Barrow,	1.25
491	"	Coal Barrow for 9 foot Retorts,	55.00
	"	" 7 " "	100.00
	"	" " " "	75.00
492	79	Charcoal Barrow, with Lid,	70.00
493	80	Plan of Rosin Gas Works. Retorts set in Brick Work.	
494	81	Gas Pipe Railing and Steam Radiator combined.	
495	81	Chemical Retort, 3 feet $3\frac{3}{4}$ inches high by 24 inches, 1 inch thick,	25.00
	"	" 18 inches high by $14\frac{3}{4}$ inches, $\frac{1}{2}$ inch thick,	6.50
496	82	Ornamental Garden Vase,	9.00
497	"	Garden Vase,	8.00
498	"	"	6.00
	"	Square Pedestal for Small Garden Vase,	2.50
514	86	Charcoal Barrow, 5 feet 6 inches by 2 feet 9 inches wide, by 2 feet deep,	80.00

CLASS FIFTH.

GAS AND STEAM FITTERS' TOOLS. *Nett Cash.*

104	10	Screwing Stocks, with Solid Dies. No. 1, for $\frac{1}{4}$ inch, $\frac{3}{8}$ inch, $\frac{1}{2}$ inch Tube,	8.50
	"	" " " " No. 2, for $\frac{3}{8}$ inch, 1 inch Tube,	9.50
	"	" " " " No. 3, for $1\frac{1}{4}$ inch, $1\frac{1}{2}$ inch, 2 inch Tube, with Driving Screw,	17.00
	"	" " " " for Cutting Screws. No. 4, for $2\frac{1}{2}$ inch, 3 inch, " " "	30.00
	"	" " " " No. 5, for $3\frac{1}{2}$ inch, 4 inch, " " "	45.00
105	"	Cutting-off Stocks. No. 1, for $\frac{1}{4}$ inch, $\frac{3}{8}$ inch, $\frac{1}{2}$ inch, $\frac{3}{4}$ inch, 1 inch Tube,	5.00
	"	" " " " No. 2, for $1\frac{1}{4}$ inch, $1\frac{1}{2}$ inch, 2 inch Tube,	8.00
	"	" " " " No. 3, for $2\frac{1}{2}$ inch, 3 inch Tube,	15.00
	"	" " " " No. 4, for $3\frac{1}{2}$ inch, 4 inch Tube,	20.00
106	"	Ratchet Wrench,	10.00
107	"	Vice Clamp,	4.50
108	"	Drill Stock and Clamp, for Tapping Street Mains. From 3 to $1\frac{1}{4}$ inches, \$6.00; from 6 inches to 3 inches, \$10.00; from 12 inches to 4 inches, \$16.00,	
109	"	Stock and Dies, for Brass Pipe,	7.50
110	"	Solid Dies, Left Hand or Right Hand Threads. $\frac{1}{8}$ inch, $\frac{1}{4}$ inch, $\frac{3}{8}$ inch, $\frac{1}{2}$ inch. Each,	1.75
	"	" " " " $\frac{3}{4}$ inch, 1 inch. Each,	2.50
	"	" " " " $1\frac{1}{4}$ inch, $1\frac{1}{2}$ inch, 2 inch. Each,	3.25
	"	" " " " $2\frac{1}{2}$ inch. Each,	4.25
	"	" " " " 3 inch. "	5.50
111	"	Gas Fitters' Universal Clamp Vice, Movable Head,	10.00

INCHES,	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
112 " Taps,	\$0.90	\$0.90	\$1.15	\$1.25	\$1.50	\$1.75	\$2.00	\$2.50	\$3.25	\$6.00	\$8.00
113 " Reamer,	.90	.90	1.15	1.25	1.50	1.75	2.00	2.50	3.25	6.00	8.00
114 " Drills,	.60	.65	.75	.85	.95	1.00	1.10	1.40	.	.	.
115 " Outside Chasers,	.75	.75	.75	.75	.75	.	.	.	.	.	.
116 " Inside Chasers,	.75	.75	.75	.75	.75	.	.	.	.	.	.

CLASS SIXTH.

ARTESIAN WELL TUBES, TOOLS, PUMPS, &c.

No. PAGE.
102 9

CAST IRON ARTESIAN WELL PIPE, WITH BOLLES' PATENT FLUSH JOINTS.

Nominal Diameter.	Inside Diameter at Joint.	Outside Diameter at Joint.	Length of each Piece.	Price, per Foot, with Band, including Patent Fee.	Extra Price of Bottom Pipe and Band.	Weight per Piece.	Weight of Band.
Inches.	Inches.	Inches.	Feet.	\$ c.	\$ c.	Pounds.	Pounds.
12	12 $\frac{1}{8}$	12 $\frac{7}{8}$	10	2.85	4.50	690	34
10	10	11 $\frac{1}{2}$	9	1.88	3.87	500	23
8	8	9 $\frac{1}{2}$	8	1.15	2.75	290	14
6	5 $\frac{3}{4}$	6 $\frac{7}{8}$	8	1.03	1.87	220	10



103a 9

WROUGHT IRON ARTESIAN WELL TUBE, FLUSH JOINTS.

Length of each Piece from 10 to 15 Feet.

Inside Diameter.	Outside Diameter.	Weight per Foot.	Price per Foot, including Joints.	Extra Price for Steel End at Bottom.
Inches.	Inches.	Pounds	\$ c.	\$ c.
2 $\frac{1}{2}$	2 $\frac{7}{8}$	5.8	0.60	1.25
3	3 $\frac{1}{2}$	7.7	.85	1.40
3 $\frac{1}{2}$	4 $\frac{1}{8}$	9.7	1.05	1.55
4	4 $\frac{3}{8}$	11.8	1.20	1.70
4 $\frac{1}{2}$	5	12.9	1.60	1.85
5	5 $\frac{9}{16}$	14.5	1.80	2.00
6	6 $\frac{5}{8}$	19.8	2.83	2.30
7	7 $\frac{5}{8}$	24.6	4.50	2.65
8	8 $\frac{5}{8}$	29	5.50	3.00



103b 9

LIGHT WROUGHT IRON ARTESIAN WELL TUBE, FLUSH JOINTS.

Length of each Piece from 10 to 15 Feet.

Outside Diameter.	Thickness of Tube.	Weight per Foot.	Price per Foot, including Joints.	Extra Price for Steel End at Bottom.
Inches.	Inches.	Pounds.	\$ c.	\$ c.
2 $\frac{1}{2}$	0.109	2.6	0.41	1.25
2 $\frac{3}{8}$	0.109	2.98	.46	1.32
3	0.109	3.16	.52	1.40
3 $\frac{1}{8}$	0.12	3.87	.57	1.48
3 $\frac{1}{2}$	0.12	4.21	.68	1.55
3 $\frac{3}{8}$	0.12	4.90	.78	1.62
4	0.134	5.23	.84	1.70
4 $\frac{1}{2}$	0.134	5.54	1.10	1.85
5	0.148	6.48	1.37	2.00
6	0.165	10.	1.91	2.30
7	0.165	12.	2.45	2.65
8	0.165	14.	3.00	3.00

CLASS SIXTH.—*Continued.*

No. PAGE.



WROUGHT IRON ARTESIAN WELL PIPES, SOCKET JOINTS.

103c 9

Finished smooth inside and out especially for this use.

Inside Diameter.	Outside Diameter	Weight per foot.	Price per foot, including Socket.	Extra price for Steel End at bottom.
Inches.	Inches.	Pounds.	\$ c.	\$ c.
2½	2¾	5.8	.60	1.25
3	3½	7.7	.85	1.40
3½	4¼	9.7	1.05	1.55
4	4¾	11.8	1.20	1.70
4½	5	12.9	1.60	1.85
5	5½	14.5	1.80	2.00
6	6¾	19.8	2.85	2.30
7	7¾	24.6	4.50	2.65
8	8¾	29	5.50	3.00



LIGHT WROUGHT IRON ARTESIAN WELL TUBE, SOCKET JOINTS.

103d 9

Finished smooth inside and outside especially for this use

Outside Diameter.	Thickness of Metal.	Weight per foot.	Price per foot, including Socket.	Extra price for Steel end at bottom.
Inches.	Inches.	Pounds.	\$ c.	\$ c.
2½	0.109	2.6	.41	1.25
2¾	0.109	2.98	.46	1.32
3	0.109	3.16	.52	1.40
3½	0.12	3.87	.57	1.48
3¾	0.12	4.21	.68	1.55
4	0.12	4.90	.78	1.62
4½	0.134	5.25	.84	1.70
5	0.134	5.54	1.10	1.85
6	0.148	6.48	1.37	2.00
7	0.165	10.	1.91	2.30
8	0.165	12.	2.45	2.65
		14.	3.00	3.00

FLUSH JOINT ARTESIAN WELL TUBES ARE MADE UNDER THE PATENT OF J. N. BOLLES, JUNE 19th 1855.

CLAIM.—“The mode of rendering Cylinders or Tubes flush or upon a line on their exterior surfaces, for Artesian Wells, or for other purposes, as described, or any other mode, substantially the same, which will produce the same effect. Patented, June 19, 1855.”

The above Patent is owned by MORRIS, TASKER & Co. : they grant no licenses to others to manufacture, or for the use of any but their own manufacture.

Also to connect to the above tubing, Pumping Cylinders, of all diameters; Composition or Cast Iron Chambers; Composition Buckets (not requiring packing) and Valves, and all the working parts very substantial for hard service in deep well pumping.



ARTESIAN WELL PUMPS, WITH WROUGHT IRON BRASS LINED CHAMBERS, BRASS PLUNGER AND LOWER BUCKET GLOBULAR SEAT POPPET VALVES.

Any size manufactured to order.

Internal Diameter, (Nominal.)	Internal Diameter, (Actual.)	Stroke.	Price.	Increased Length of Stroke, per foot, extra.
Inches.	Inches.	Feet.	\$ c.	\$ c.
2½	2¾	4	31.00	1.50
3	2¾	5	41.25	2.00
3½	3¼	6	56.50	2.75

CLASS SIXTH.—*Continued.*

ARTESIAN WELL BORING TOOLS.

No. PAGE.

801	84	Boring Rods, 1½ inch Square Iron for Sinking Wells, 4 to 12 inches Internal diameter, at \$4.00 per end, and 50 cents per foot of length.	1½ in. square.	6 ft.	8 ft.	10 ft.	12 ft.	15 ft.	Long.
				\$7.00	\$8.00	\$9.00	\$10.00	\$11.50	Per piece, Complete.
801		Boring Rods, ¾ inch Square Iron for Sinking Wells; 2 to 3½ inches Internal diameter, at \$3.25 per end, and 35 cents per foot of length.	¾ inch do.	5.35	6.05	6.75	8.75		Per piece, Complete.

INTERNAL DIAMETER OF WELL.

			2	2½	3	3½	4	5	6	8	10	12	Inches.
			\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
802	"	Pod Augers,	5.25	6.25	7.25	8.25	9.25	11.25	13.25	17.25	21.25	24.25	} With Steel Cutting Edges
803	"	Lip "	5.25	6.25	7.25	8.25	9.25	11.25	13.25	17.25	21.25	24.25	
804	"	Worm " (8 twists,)	7.25	8.75	10.25	11.75	13.25	16.25	19.25	25.25	31.25	37.25	
805	"	" " (4 ")	6.00	7.12	8.25	9.38	10.50	12.75	15.00	19.50	24.00	28.50	
806	"	" " (2 ")	5.00	6.00	7.00	8.00	9.00	11.00	13.00	17.00	21.00	24.00	} Solid Steel Worm, below 4 inches; Steel Pointed, above 4 inches.
807	"	" " (cone,)	4.75	5.62	6.50	7.38	8.25	10.00	11.75	15.25	18.75	22.25	
808	"	" " (taper,)	4.75	5.62	6.50	7.38	8.25	10.00	11.75	15.25	18.75	22.25	
809	"	Spiral " (flat,)	4.75	5.62	6.50	7.38	8.25	10.50	12.75	17.25	21.75	26.75	} Solid Steel Worm.
810	"	" " (do.)	4.75	5.62	6.50	7.38	8.25	10.50	12.75	17.25	21.75	26.75	
811	"	Y		2.25					3.25				
812	"	Cross Head,	4.00	4.75	5.50	6.25	7.00	8.50	10.50	13.00	16.00	19.00	
813	"	Wrench Handle,		11.00					15.00				
814	"	" Bar,		2.25					3.00				
815	"	Lifter,		3.95					5.00				
816	"	Hook,		1.75					2.50				
817	"	Well Hook,		4.50					6.00				
818	"	Combination Auger,		not made			60.00	67.50	75.00	83.00	92.00	100.00	Triplicate Steel Cutters.
819	85	Boulder Cracker,	5.50	8.50	11.50	14.50	17.50	23.50	29.50				
820	"	Spring Catch,	4.50	5.25	6.00	6.75	7.50	9.00	10.50	13.50	16.50	19.50	Steel Wires.
821	"	Hook,		2.75									
822	"	" " . . . . .		.50									
823	"	Drill Stock and Drill for soft rock,	17.50	20.00	22.50	25.00	27.50	32.50	37.50	47.50	57.50	67.50	Triplicate Steel Drills.
824	"	Catchall,	47.50	48.75	50.00	51.25	52.50	55.00	57.50	62.50	75.00	85.00	} 4 pairs Steeled Bits.
825	"	" "	49.00	41.25	42.50	43.75	45.00	47.50	50.00	55.00	65.00	75.00	
826	"	Catch Hook,	5.00	5.25	5.50	5.75	9.00	11.00	13.00	17.00	21.00	24.00	
827	"	Hook,		2.25									
828	"	Drift Hammer,											
829	"	Thief Bucket,	6.00	7.12	8.25	9.38	10.50	12.75	15.00	19.50	24.00	28.50	
830	"	Socket and Hook,			7.00				9.00				
831	"	Tubular Drill Rods,	80 cts. per foot, 1½ in. outside diameter.										
832	"	Drill Stocks,	8.00	9.50	11.00	12.50	14.00	17.00	20.00	26.00	32.00	38.00	
833	"	Drills,	8.00	9.50	11.00	12.50	14.00	17.00	20.00	26.00	32.00	38.00	
834	"	" "	3.50	4.12	4.75	5.37	6.00	7.25	8.50	11.00	13.50	16.00	
835	"	Clamps,							10.00				
836	86	Catch for hauling Pipe,											
837	"	Gin Pulleys,	12 in. wheel, \$13.50; 10 in. wheel, \$10.00.										
838	"	Section of a Pump'g Cylinder,											
839	"	Deep Well Pump,											

840	"	Apparatus for Sinking Artesian Wells, consisting of Derricks with Shears, etc., complete as shown in drawing, exclusive of Ropes and Chains, \$375.00											
497	83	Bolles' Rock Drilling Machine.											

ANY SIZE DERRICKS MADE TO ORDER AT LOWEST RATES.

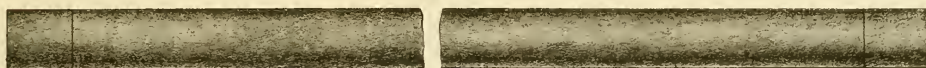
LAP WELDED AMERICAN CHARCOAL IRON BOILER FLUES.

.N^o1.



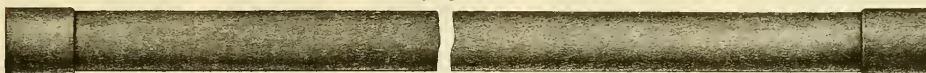
With Plain Ends

.N^o2.



With Safe Ends

.N^o3.



With Safe Ends $\frac{1}{16}$ inch larger than rest of the Flue

.N^o4.



With Safe Ends one of which is $\frac{1}{16}$ in. larger than rest of the Flue

.N^o5.



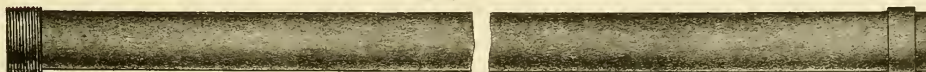
With Safe Ends one of which is $\frac{1}{4}$ in. less than rest of the Flue

.N^o6.



Same with round Shoulder

.N^o7.



With Screw on one End and Collar on the other

.N^o8.



Cross Flue for Fire Box



Section

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ORIGINAL ARTICLES
SYMPOSIUM ON THE
PROPHYLAXIS OF
TUBERCULOSIS
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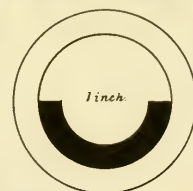
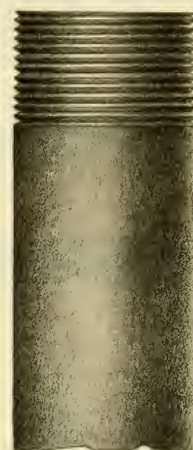
No 9
Hydraulic Tube.



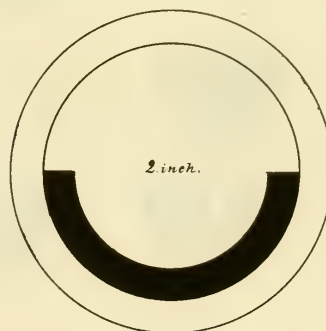
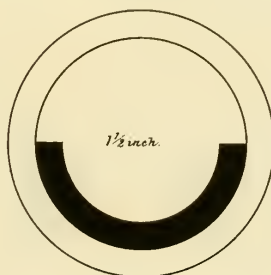
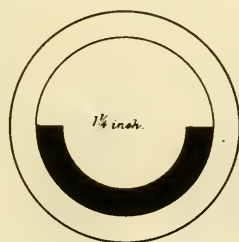
Extra & Double extra strong Tube

No 10

No 11



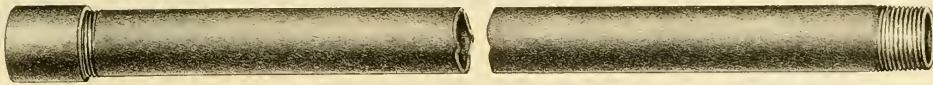
Full Size here given.





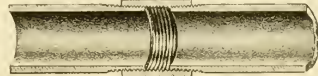
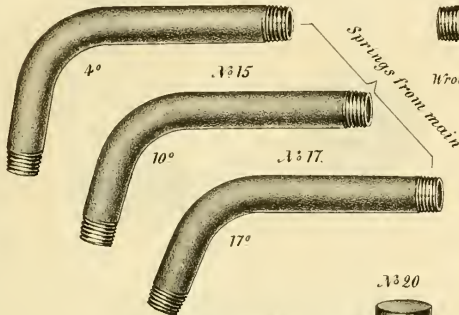
No 12

Steam, Gas or Water pipe. Wrought or Galvanized iron. Butt welded.



No 16

No 14

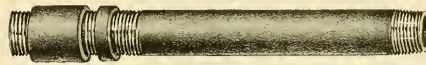


Section of a Steam or taper screw joint



Section of a hydraulic or cone joint.

No 13



Longscrew

No 20



Cap

No 24



No 22



No 24



locknuts.

No 26

No 23



Shoulder & close nipples

No 25



Bushing

No 21



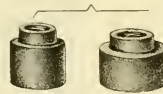
Plug

No 18



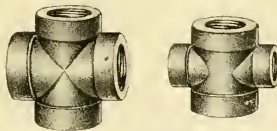
Socket

No 19



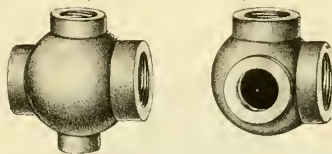
Reducing sockets

No 28



Crosses

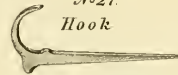
No 28 a



Globe crosses
reducing & corner fittings

No 27

Hook



No 31



No 32

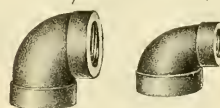
Return Bends

No 29



Tees

No 30



Ells



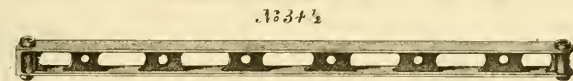
A334
Manifold



A333
Square Return Bend



A336
Collar



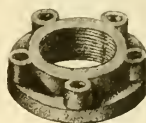
Coil Stands



A335
Flange



A335 1/2
Flange



A337
Lamp Cock

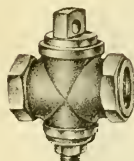


A334a



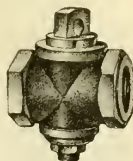
Valve manifold

A339.



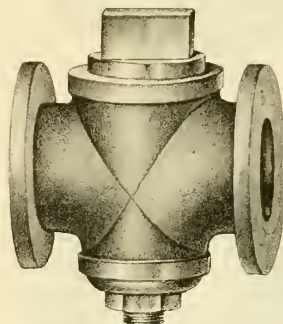
Brass Cock

A339a



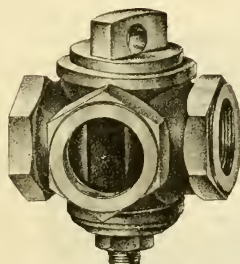
Iron Cock with brass or iron plugs

A340.



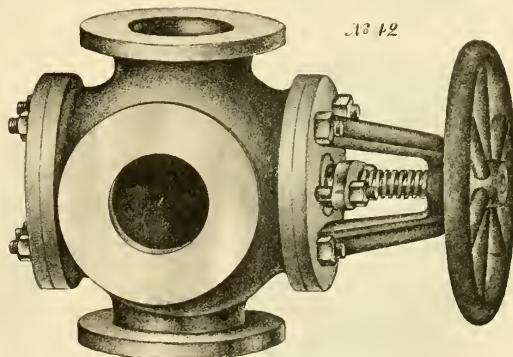
Iron Cock - Flanged

A341.



Threeway Cock.

A342



Transfer Valve.

A338



Lamp Tube.

THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILLINOIS

1950

THE UNIVERSITY OF CHICAGO PRESS

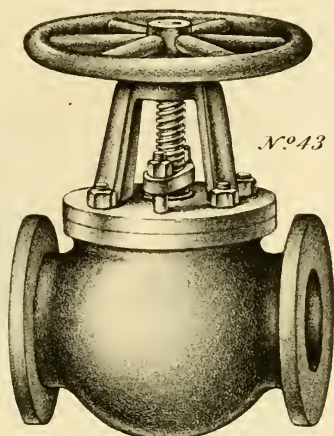
CHICAGO, ILLINOIS

1950

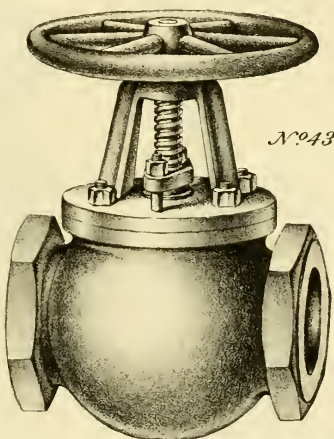
THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILLINOIS

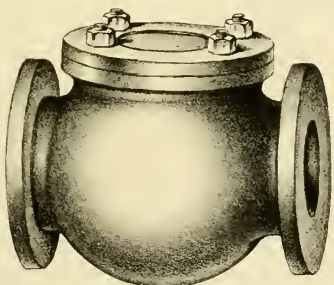
1950



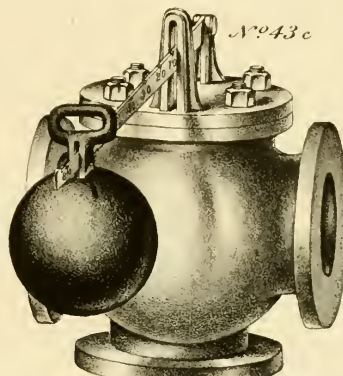
Flanged Globe Valve



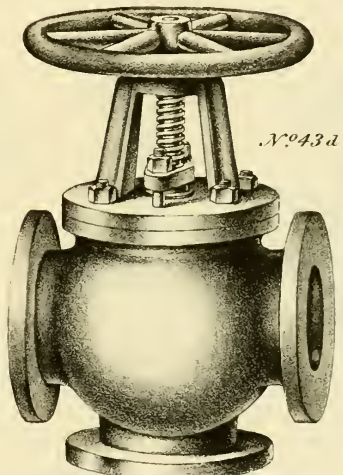
Screwed Globe Valve



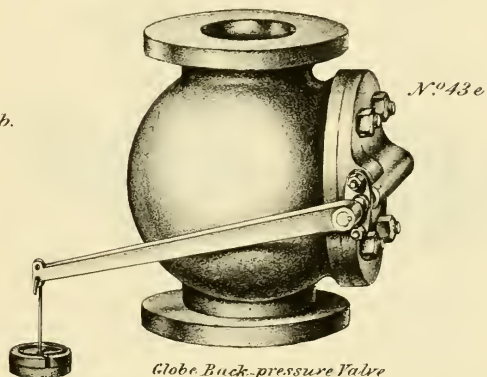
*Globe Vertical & Horizontal
Check Valve*



Globe Safety Valve



Globe Cross Valve



Globe Back-pressure Valve

通志

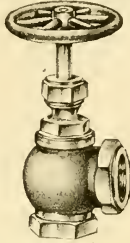
卷之

No 44



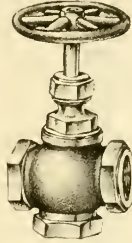
Globe Valve

No 45



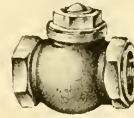
Angle Valve

No 46



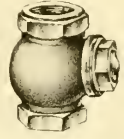
Cross Valve

No 50



Horizontal Check Valve

No 50a



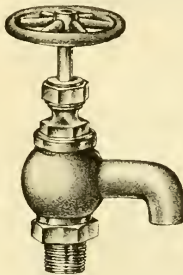
Vertical Check Valve

No 45a



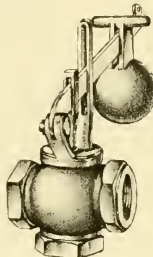
Angle Pressure Valve.

No 49



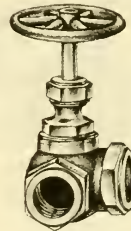
Angle Bib Valve.

No 44b



Globe Safety Valve

No 46a



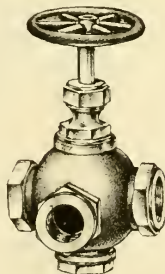
Globe Corner Valve.

No 47



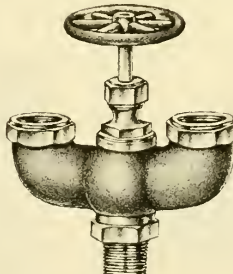
Bath Tub Valve

No 42a



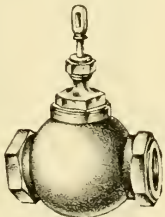
Transfer Valve

No 48



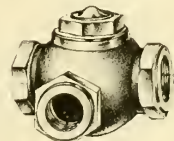
Double Bath Tub Valve

No 51.



Double disc Governor Valve

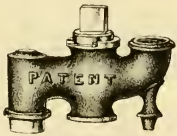
No 51a



Double disc Pump Valve

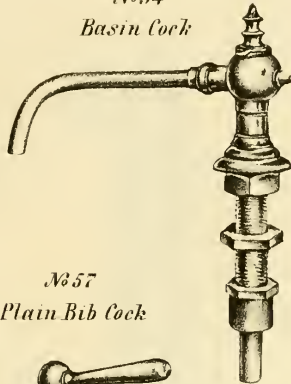
No 53

Hydrant Cock



No 54

Basin Cock

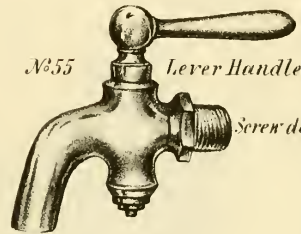


Brass Bib Cock

No 55

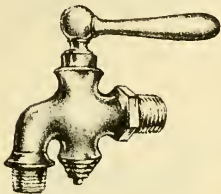
Lever Handle

Screw dail



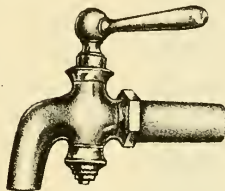
No 56

Bib Cock - Hose screw



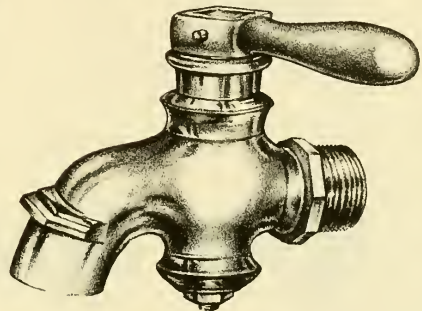
No 57

Plain Bib Cock



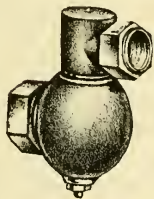
No 58

Val Cock



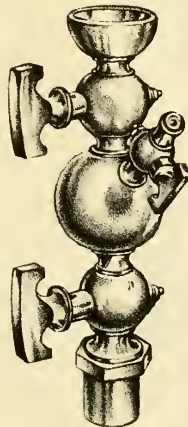
No 59

Swing Joint



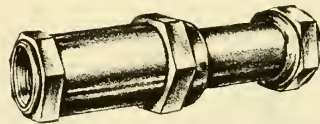
No 60

Double Oil Cock



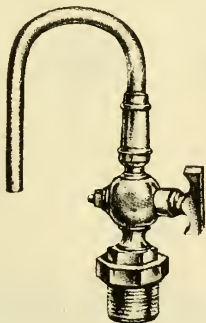
No 61

Expansion Joint



No 62

Try Cock for Purifier



No 63

Oil Cup



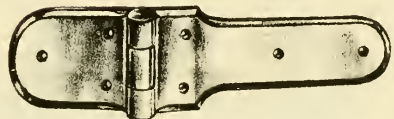
No 65

Mercury Cup



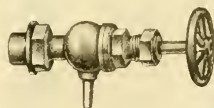
No 64

Brass Hinge





No 68



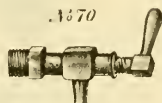
Gauge Valve

No 69



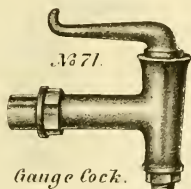
Gauge Cock

No 70



Gauge Cock

No 71



Gauge Cock.

No 72.



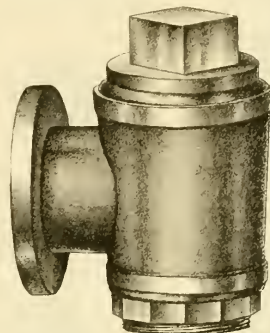
Air or pet Cocks.

No 66



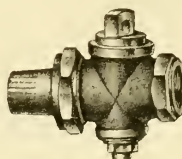
Glass Water Level Indicator

No 66a



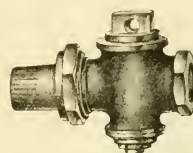
Angle Cock for Sugar house use

No 39 b



Brass Steam Cock
with soldering union

No 74 a



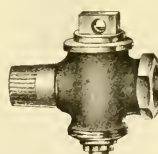
Gas Meter Cock with
soldering union

No 67



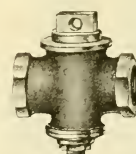
Vacuum Valve

No 74



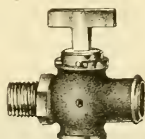
Gas Meter Cock.

No 75



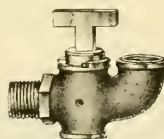
Gas Service Cock

No 79



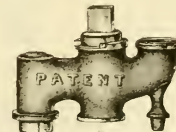
Straight Hydrant Cock
& waste

No 78



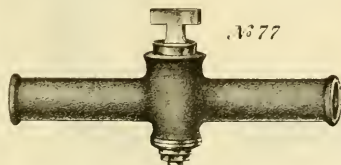
Crooked Hydrant Cock
& waste

No 53

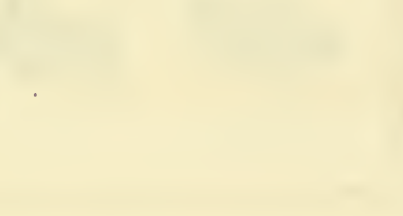
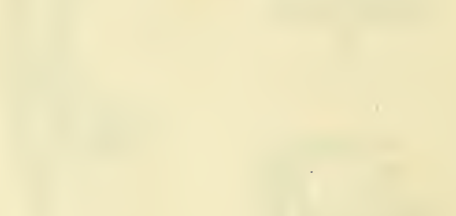
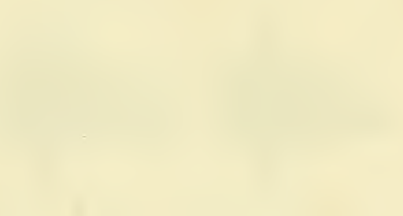


Hydrant Cock

No 77



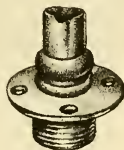
Iron pipe Stop



N^o 80. Bath Tub Overflow:



N^o 81. Wash Tub Waste. Basin Waste



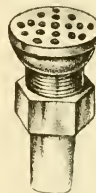
N^o 82. & Chain.



N^o 83. Bath Tub Strainer



N^o 84. Sink Waste with Union.



N^o 85. Sink Waste with Screw.



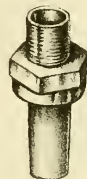
N^o 86. Mall. Iron Union



N^o 87. Brass Union (inside Screw).



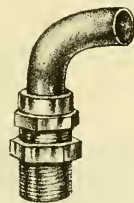
N^o 88. Bath Boiler Union Straight



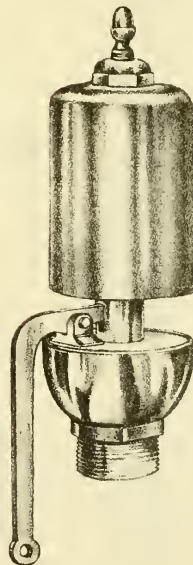
N^o 89. Brass Union (inside Screw.)



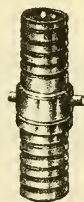
N^o 90. Bath Boiler Union (Goose Neck.)



N^o 93. Brass Steam Whistle



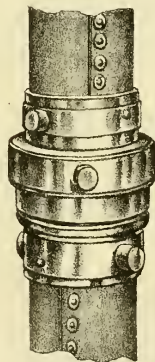
N^o 92. Hose Coupling (for Pavement.)



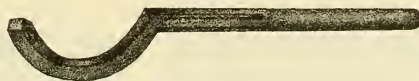
N^o 91. Boiler Ferrule.



N^o 94. Fire Hose Coupling.



N^o 95. Coupling Wrench

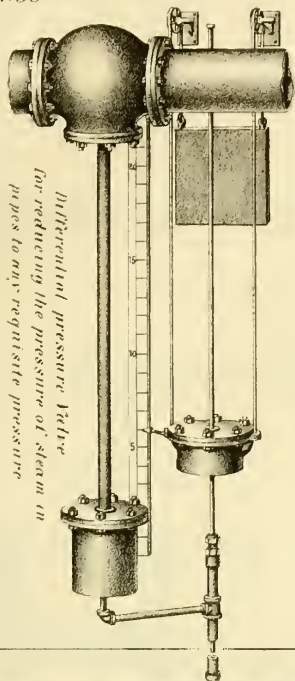


N^o 96. Branch Pipe.



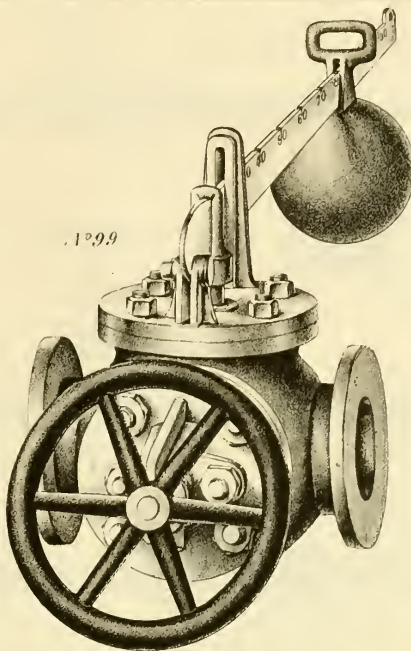


Nº 98



Differential pressure Valve
for reducing the pressure of steam in
pipes to any requisite pressure

Nº 99



Combined stop & safety Valve

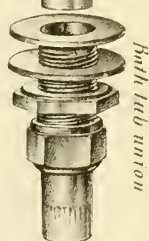
Nº 101



Both tub over flow or stand pipe

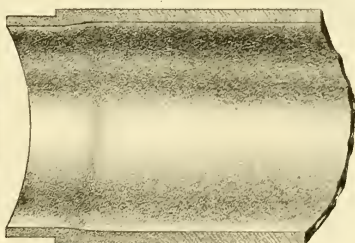
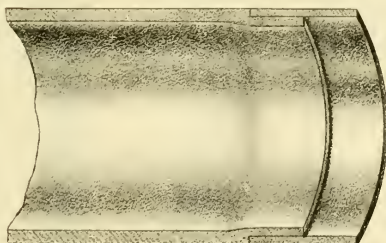


Plug



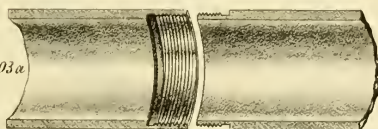
Both tub union

Nº 102



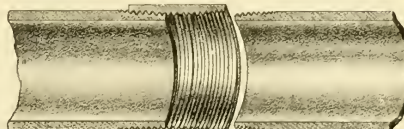
Section of cast iron Artesian Well pipe flush joints with wrought iron Bends.

Nº 103a



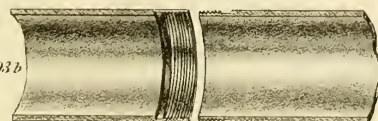
Wrought iron Artesian Well pipe flush joint

Nº 103c



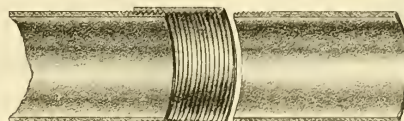
Wrought iron Artesian Well pipe socket joint.

Nº 103b



Light wrought iron Artesian Well pipe, flush joint

Nº 103d



Light wrought iron Artesian Well pipe socket joint

Nº 100



Strainer

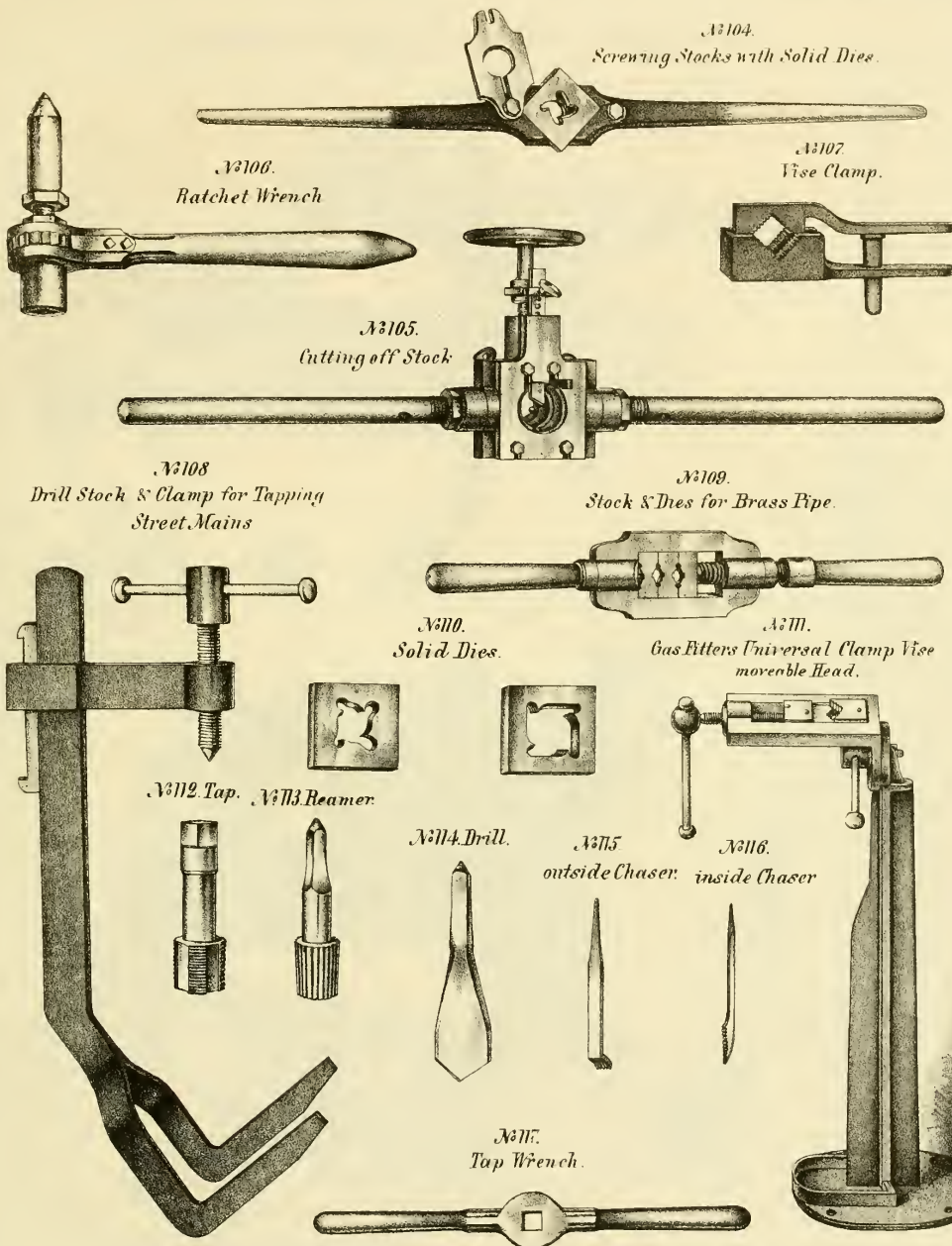


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N^o 119



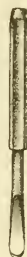
Wall Chisel

N^o 120



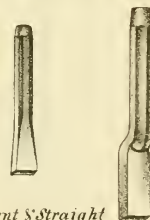
Cold Chisel

N^o 123



Cape Chisel

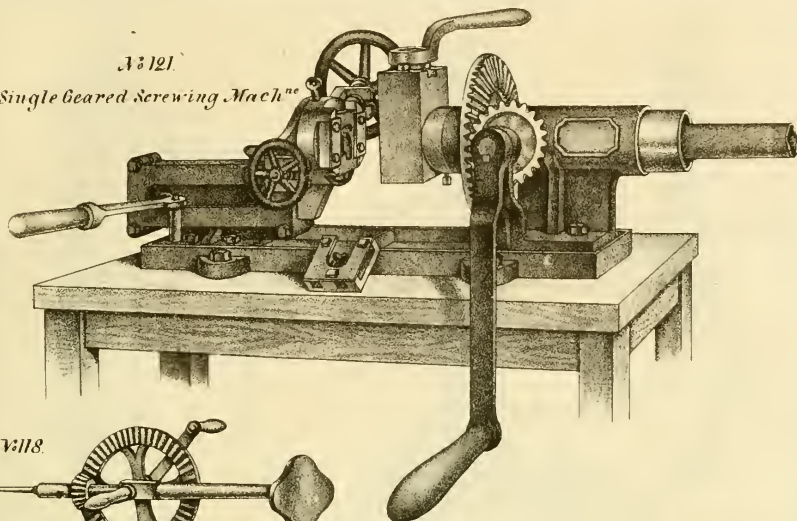
N^o 124



Bent & Straight
Caulking Chisel

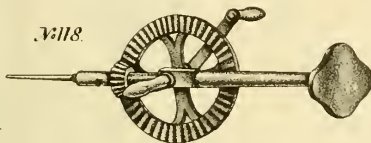
N^o 121

Single Geared Screwing Machine



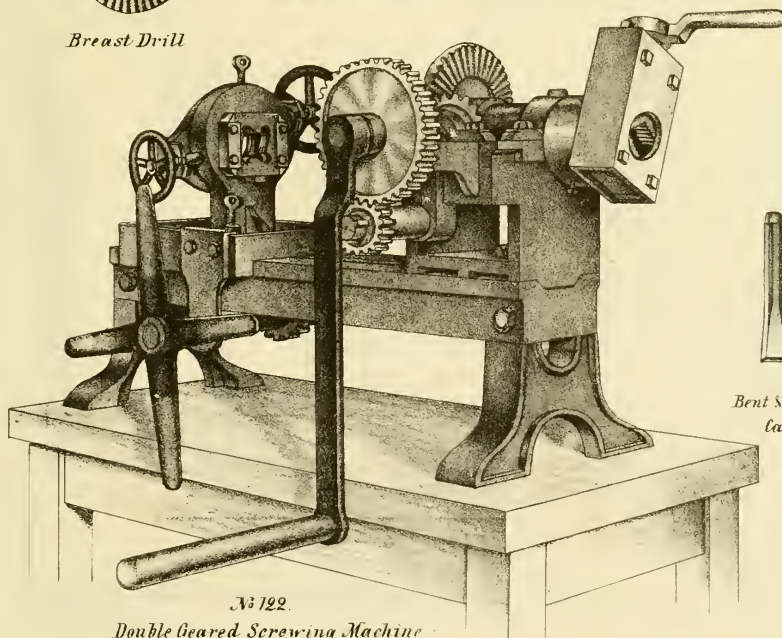
N^o 118

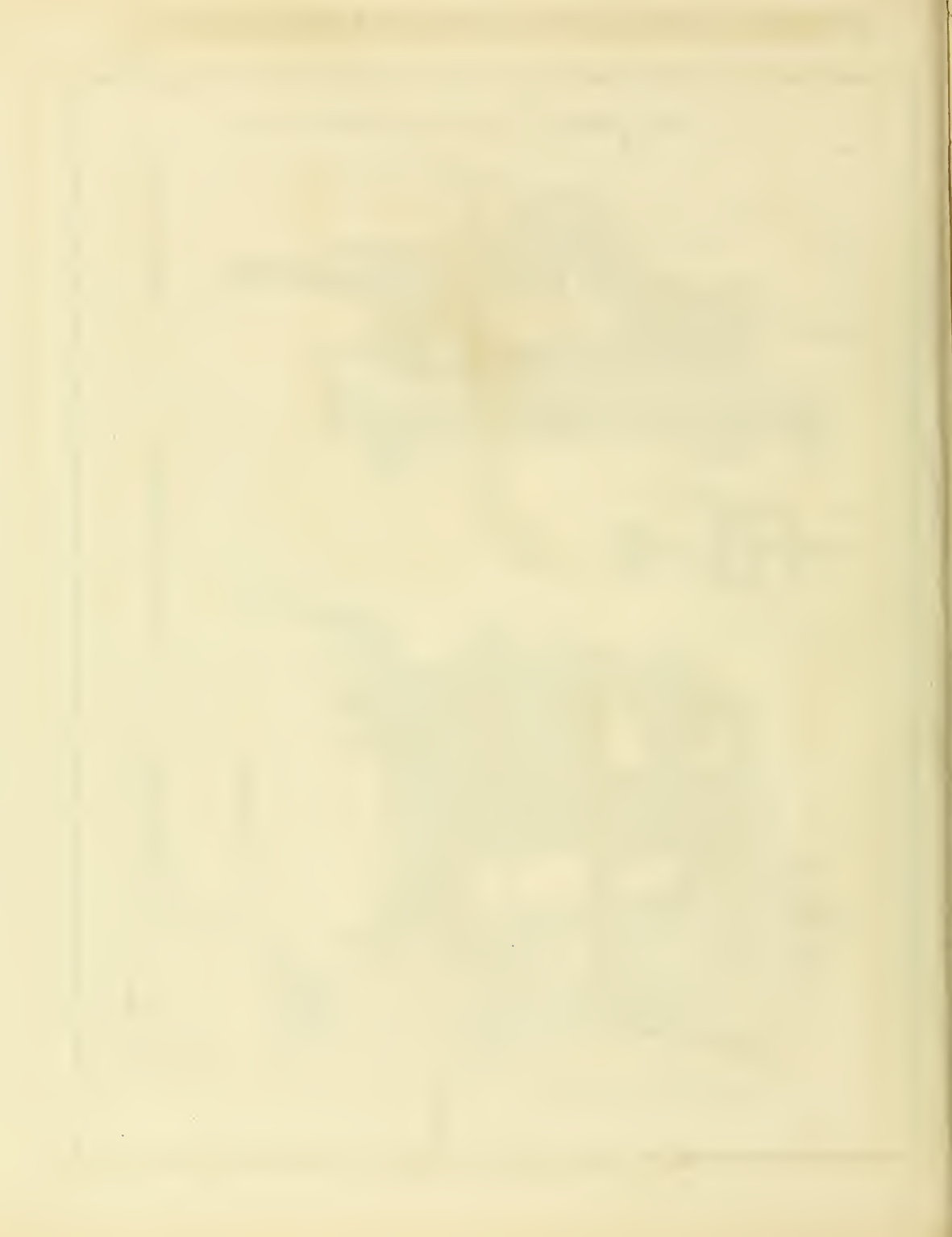
Breast Drill



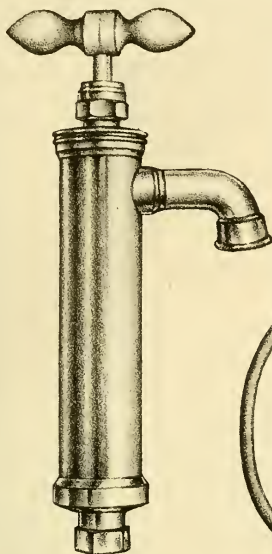
N^o 122

Double Geared Screwing Machine

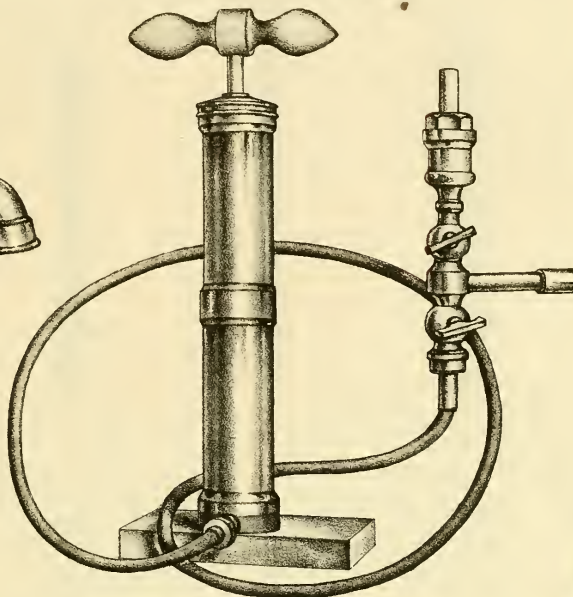




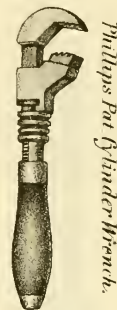
N^o 125. Drip Pump.



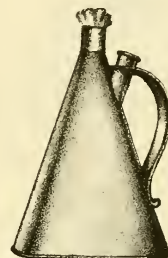
N^o 126. Gas Fitters Proving Pump.



N^o 127.



Phillips Pat. Cylinder Wrench.



N^o 138. Torch.

N^o 128.
Pipe Tongs.



N^o 129.



N^o 130.



Burner & Meter Pliers.

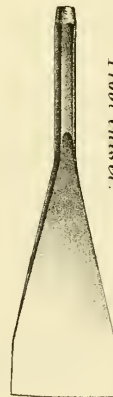
N^o 131.



N^o 132.



N^o 133.



Floor Chisel.

N^o 134.



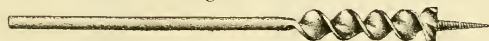
Plaster Chisel.

N^o 135.

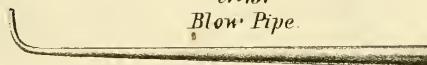
Cold Chisel



N^o 136.
Anger



N^o 137
Blow Pipe.





N^o 139



Hook Plate

N^o 140



Corner Plate

N^o 140 a



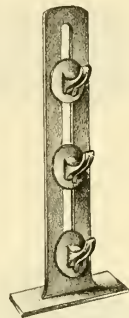
Ring Plate

N^o 141



Rosett Plate

N^o 146



Movable Hook Plate
for Laundry Coils

N^o 149



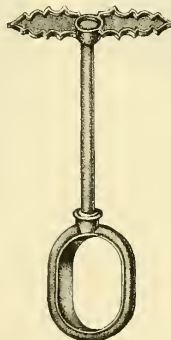
Triple Expansion
Hanger

N^o 147



Expansion
Hanger

N^o 148



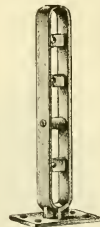
Expansion Hanger
for Large Pipe

N^o 144



Stand Bracket

N^o 145



Close Pipe Support

N^o 150



Hanger in halves

N^o 143



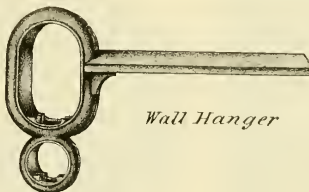
Single Hook

N^o 142



Single Hook Plate

N^o 151



Wall Hanger

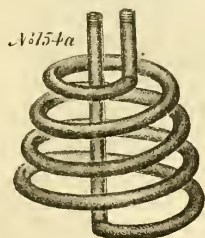
N^o 145 a



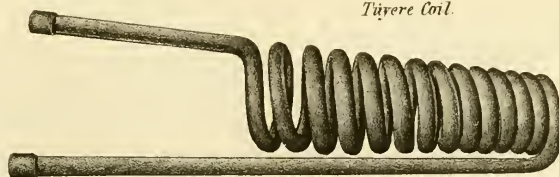
Wall Plate



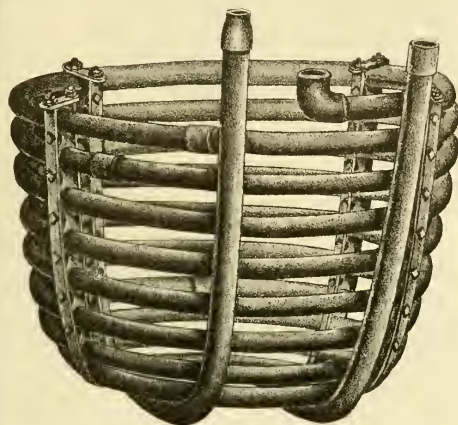
Heater Coil.



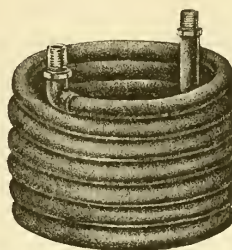
N^o 152.
Tuyere Coil.



N^o 153.
Soap Coil



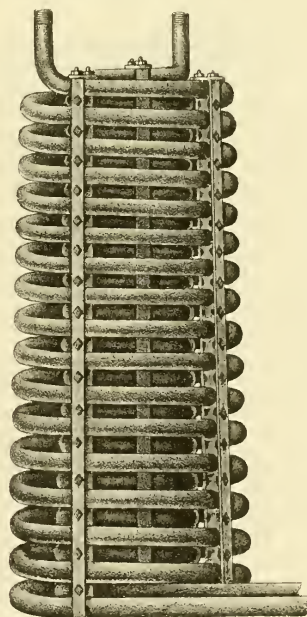
N^o 154
Heater Coil.



N^o 155.
Steam Gauge Coil



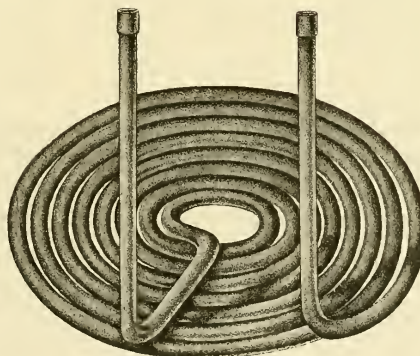
N^o 158.
SuperHeating Steam Coil

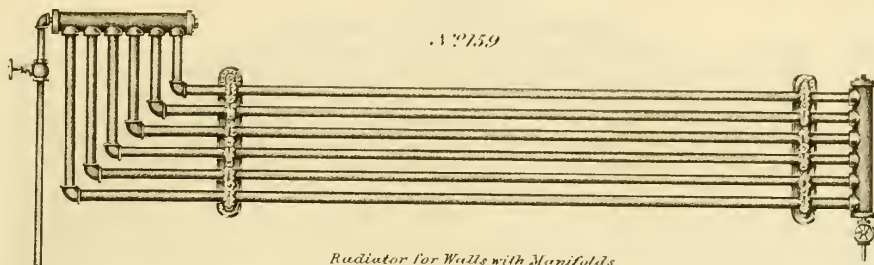


N^o 156.
Tump Coil.

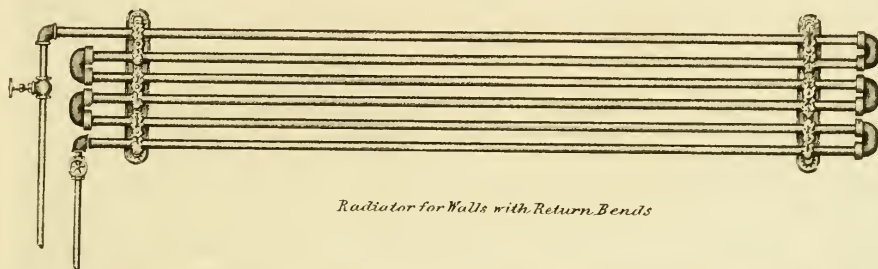


N^o 157
Flat Coil for Tanks

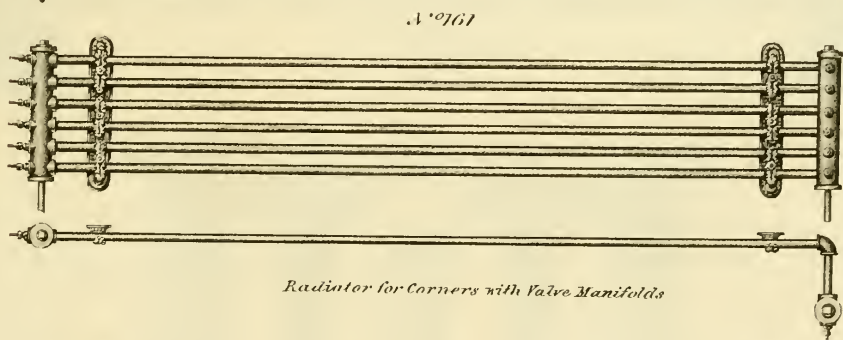




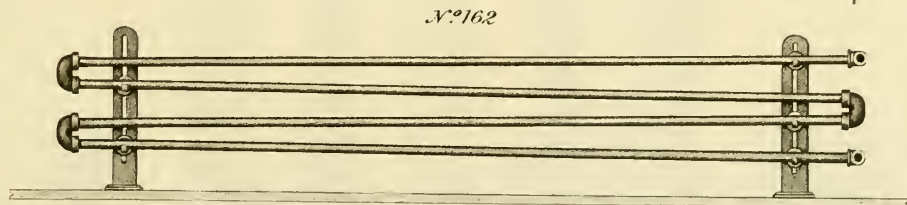
Radiator for Walls with Manifolds



Radiator for Walls with Return Bends

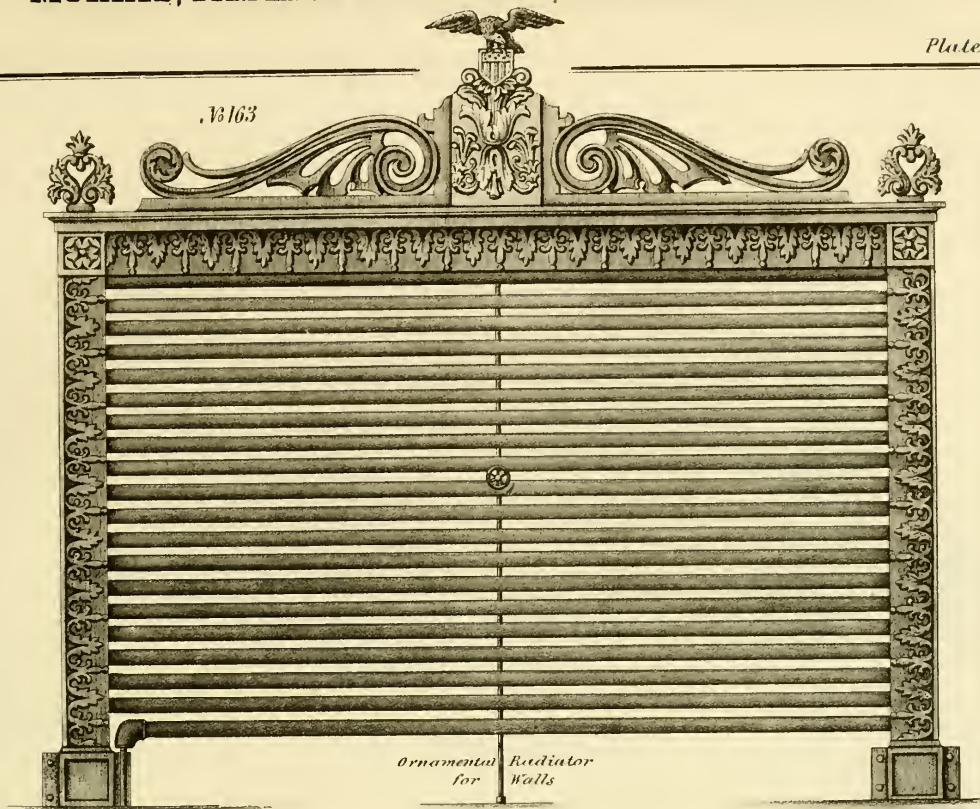


Radiator for Corners with Valve Manifolds

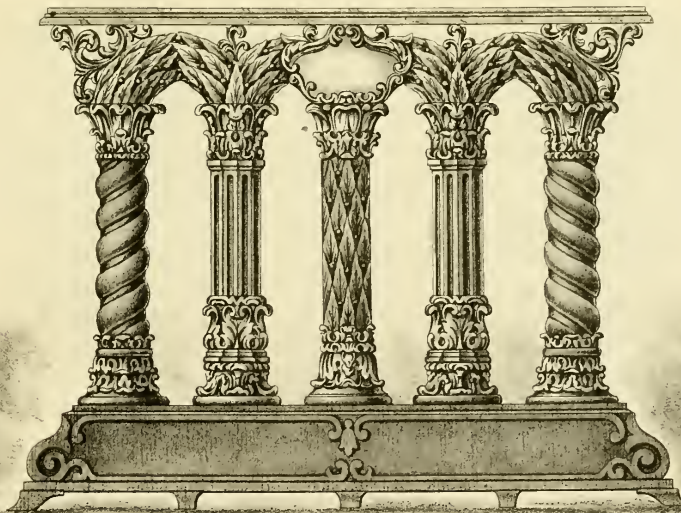


Radiator for Drying Closets with Return Bends

No 163

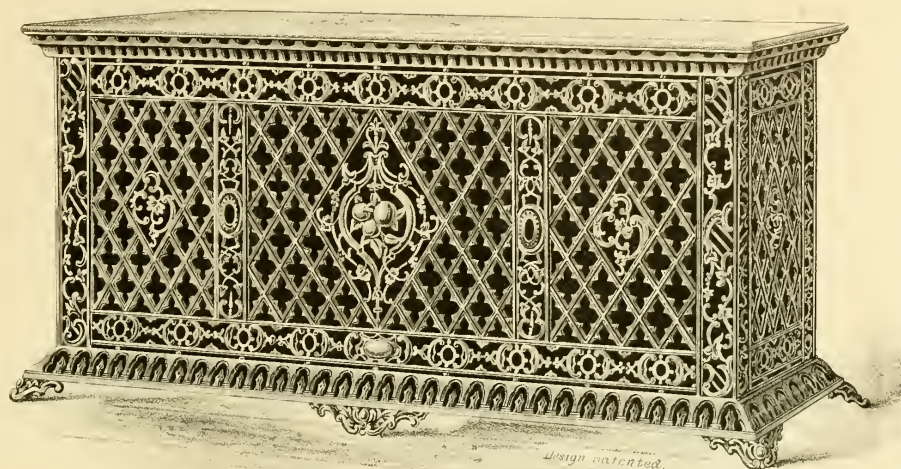


No 164



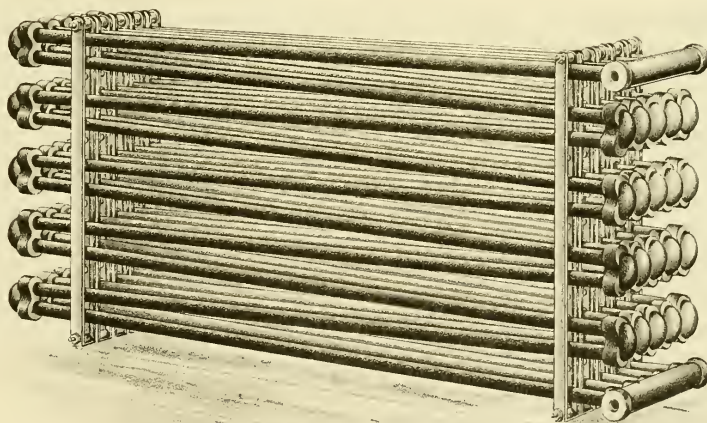
Cast Iron Pedestal Radiator

N^o 166.



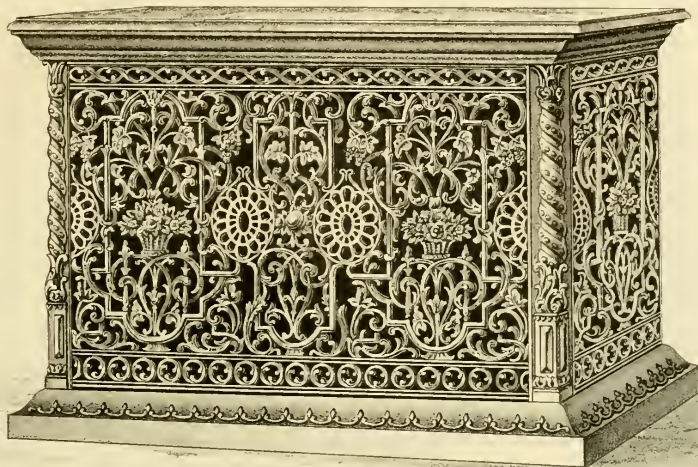
Screen for covering Box Coils

N^o 165



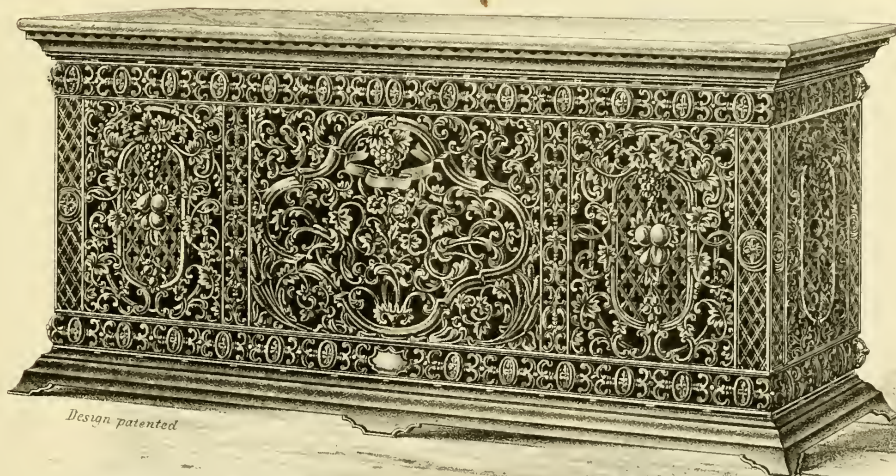
Box Coil Radiator

N^o 168

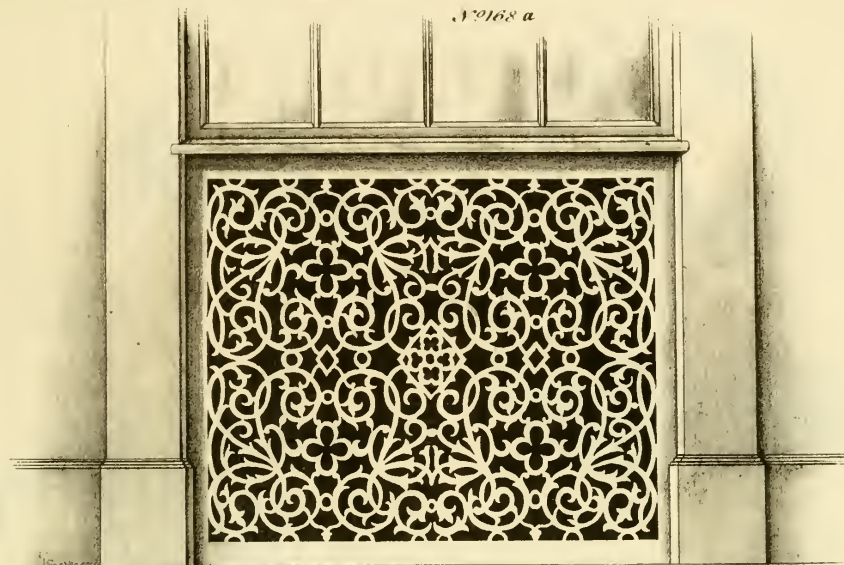


Screens for Covering Box Coils

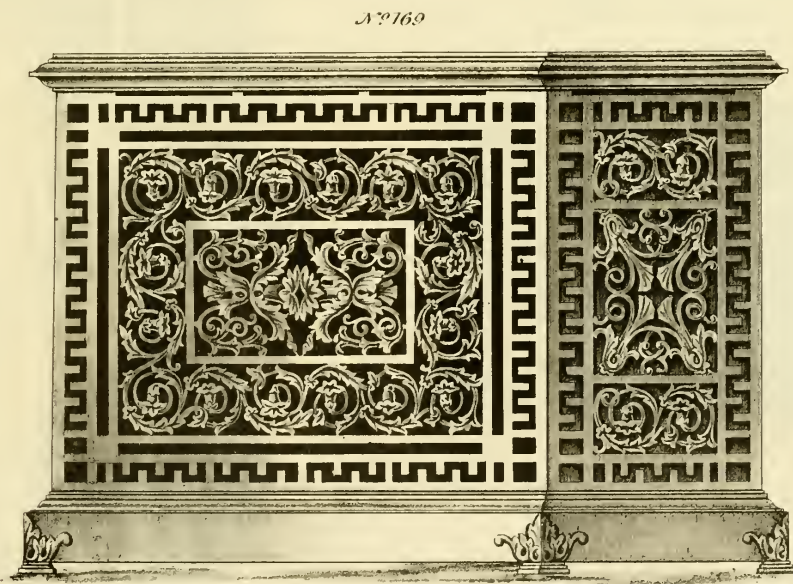
N^o 167







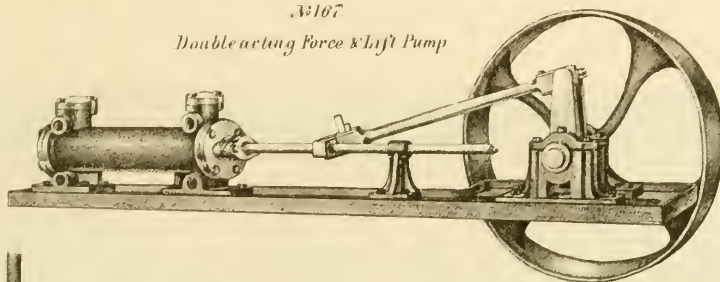
Screen for Recess Radiator



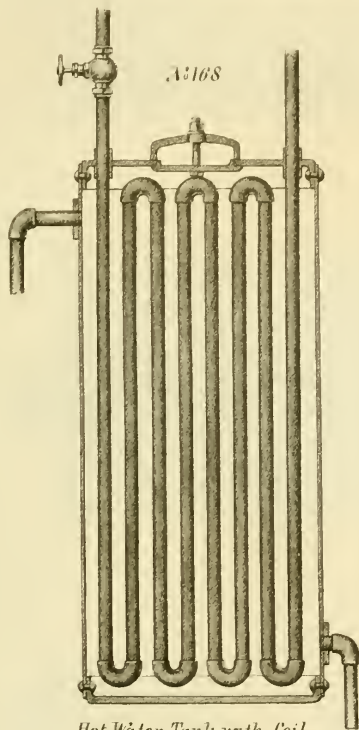
Ornamental Screen for Box Coil Radiator

N^o 167.

Double acting Force & Lift Pump

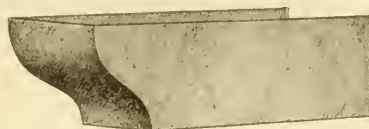


N^o 168



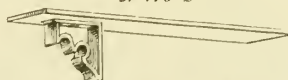
Hot Water Tank with Coil.

N^o 170



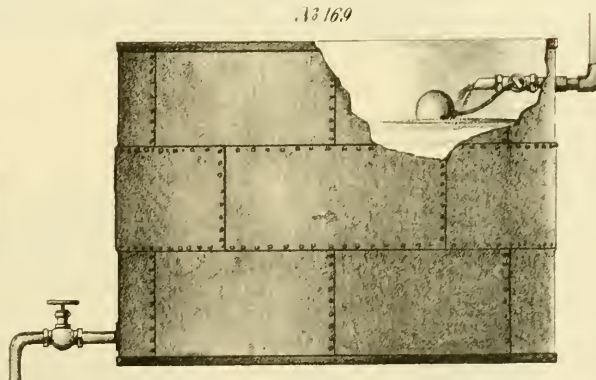
Battlement Bracket.

N^o 170 1/2

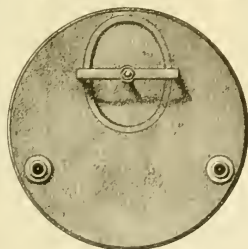


Battlement Bracket.

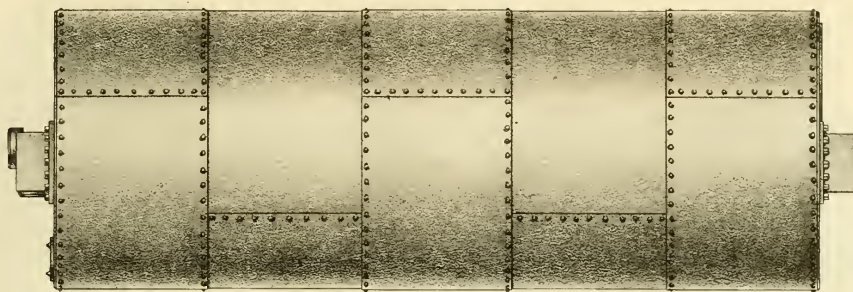
N^o 169



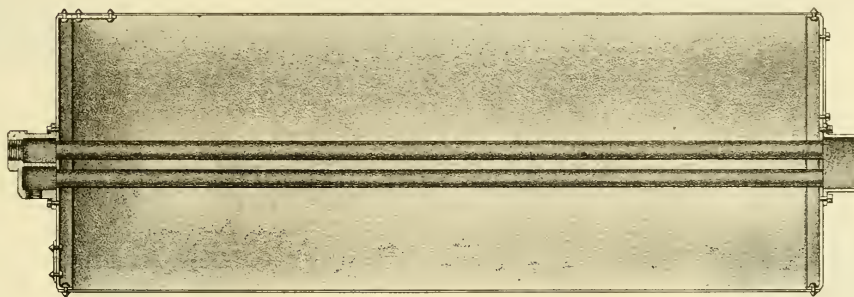
Cold Water Tank with Ball Cock.



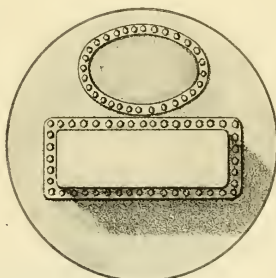
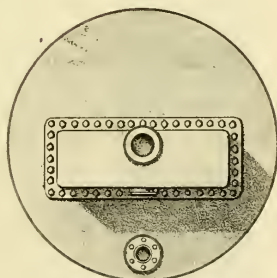
No 168 1/2



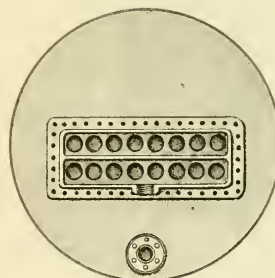
Hot Water Tank.



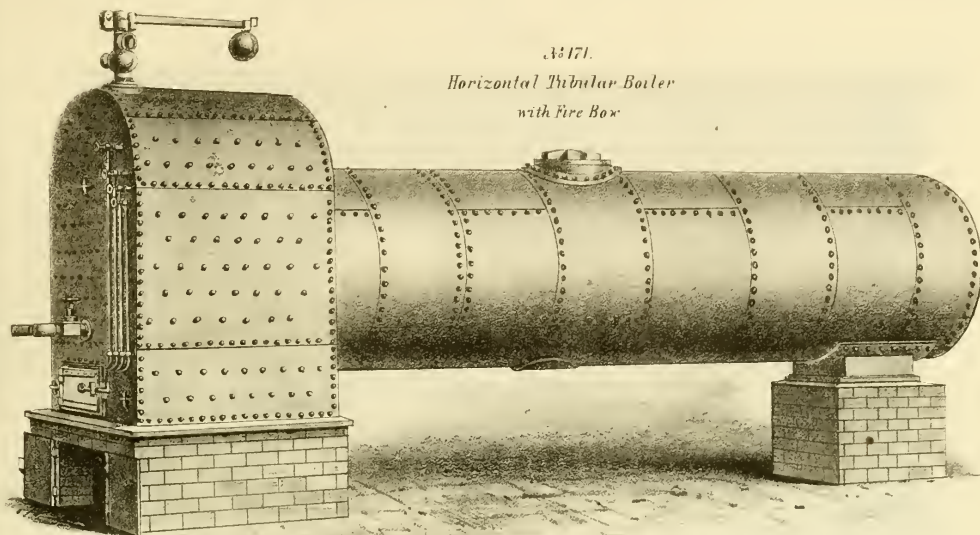
Section.



Ends.

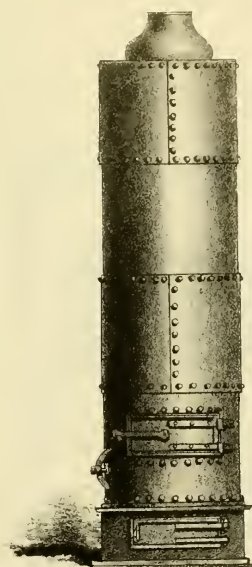


Section of Ends. 2



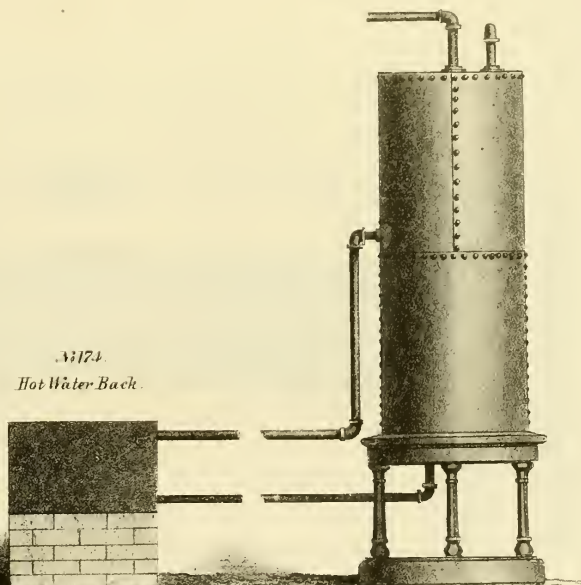
No. 171.
*Horizontal Tubular Boiler
with Fire Box*

No. 172.
Vertical Tubular Boiler



No. 173
Circulating Hot Water Boiler

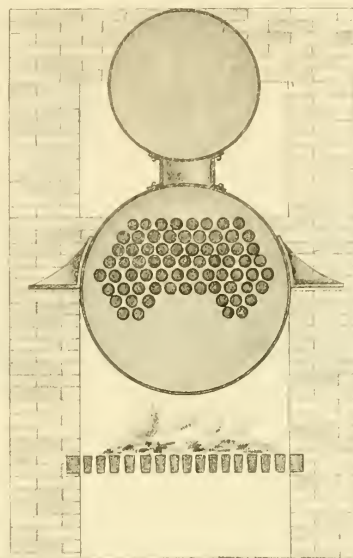
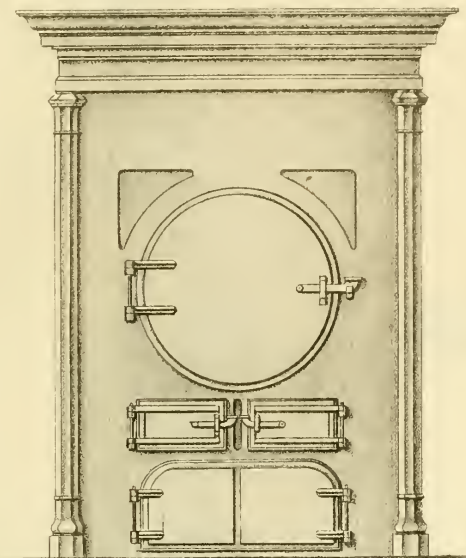
No. 174
Hot Water Back



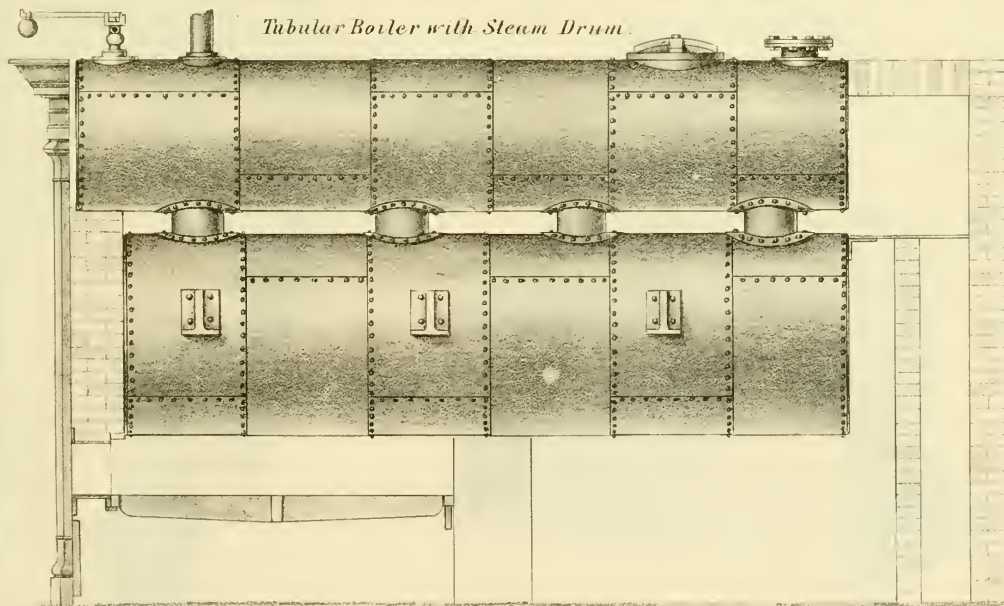
Front View:

A: 175 $\frac{1}{2}$

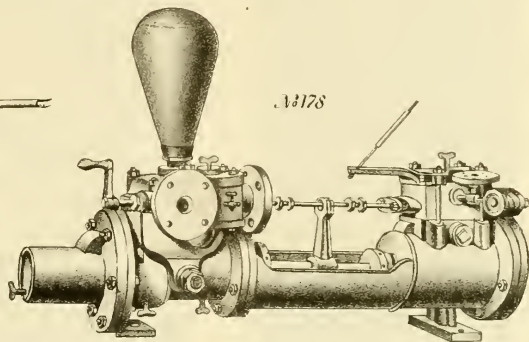
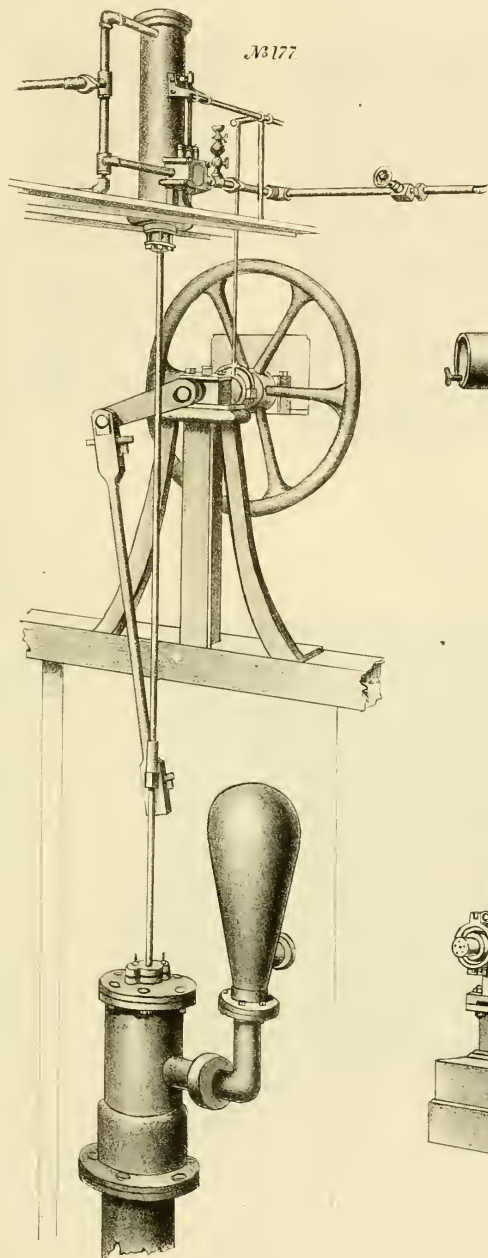
Section



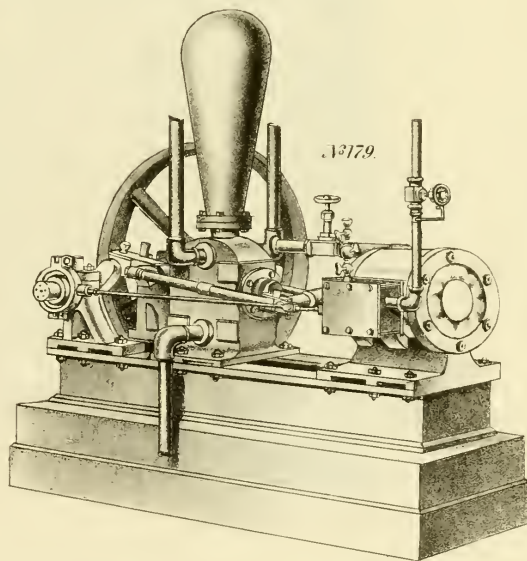
Tubular Boiler with Steam Drum



Artesian or other Well Pump



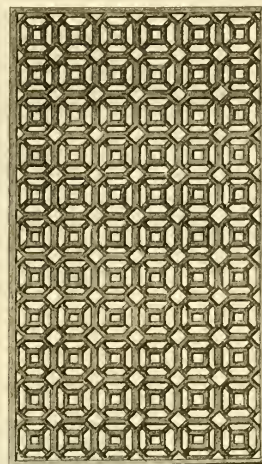
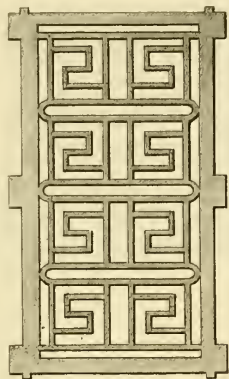
Worthington Pump.



Woodward Pump.

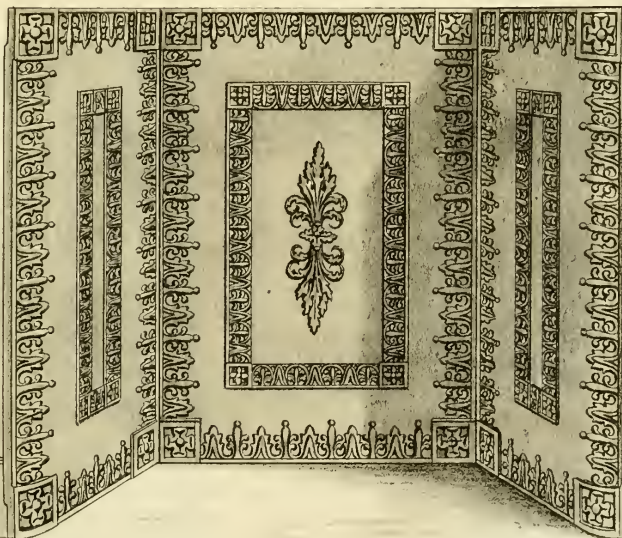
N:185

Ventilator Fronts.

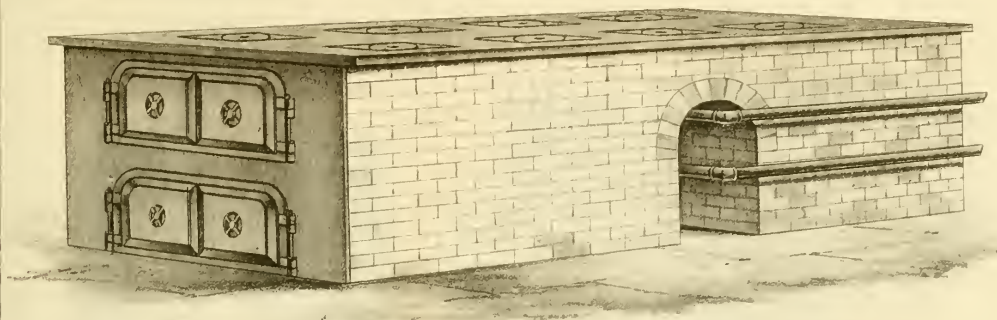


N:186

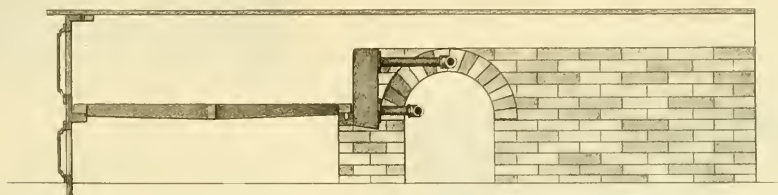
Backs & Jambs for Fire places.



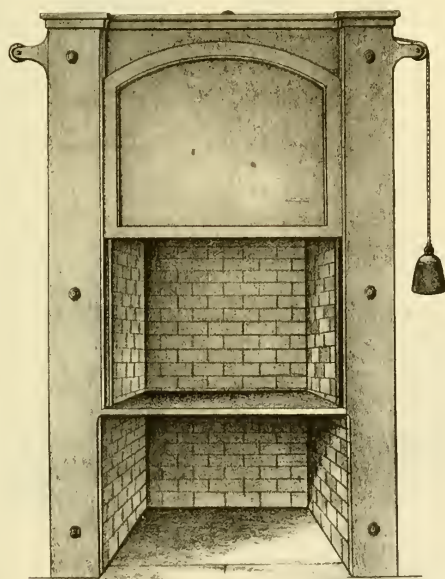
No 187 Cooking Range for Hotels &c



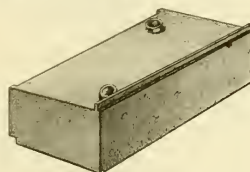
Section



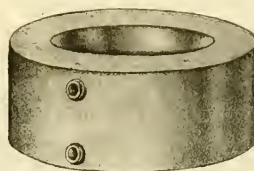
No 188 Broiling Oven



No 189 Hot Water Back

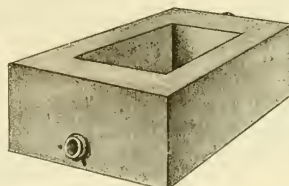


No 190 Hot Water Cylinder.

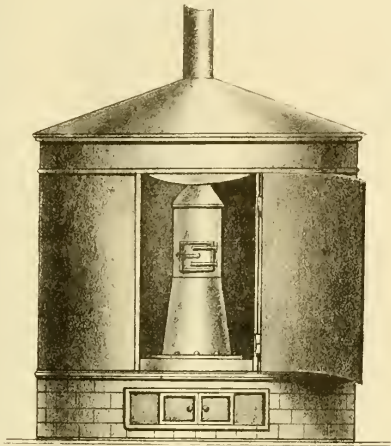


No 191.

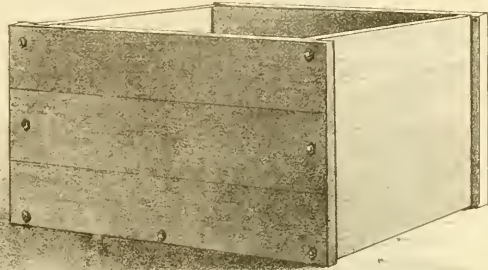
Hot Water Box.



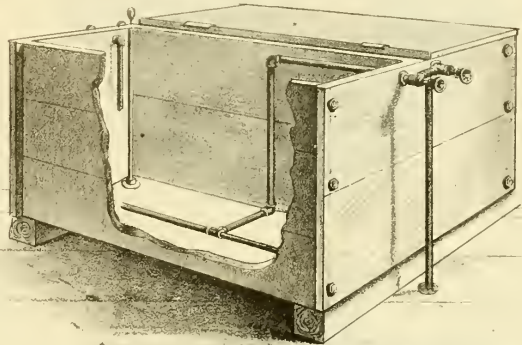
A7192
Rotary Roaster.



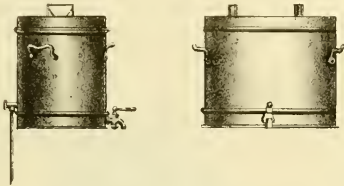
A7193.
Rinsing Tub.



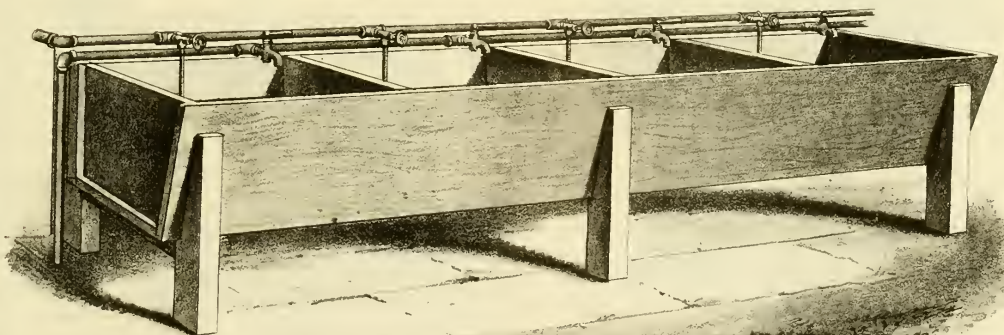
A7194.
Boiling Tub.

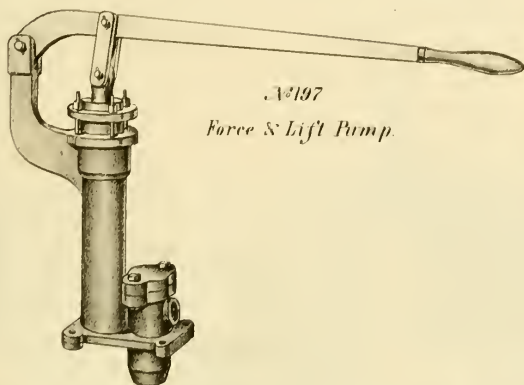


A7195
Round & oval Tin Steamers.

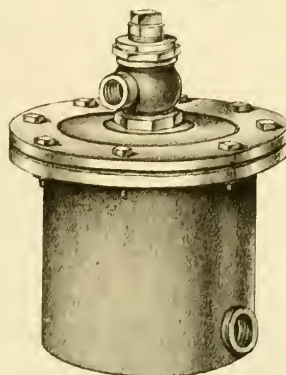


A7196.
Wash Tubs





No 197
Force & Lift Pump.

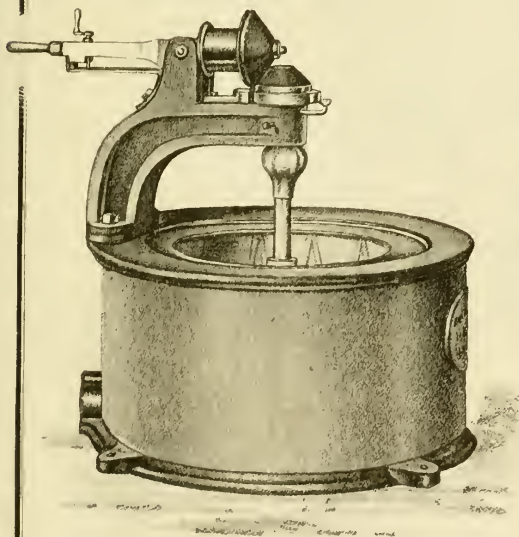


No 198 Steam Trap

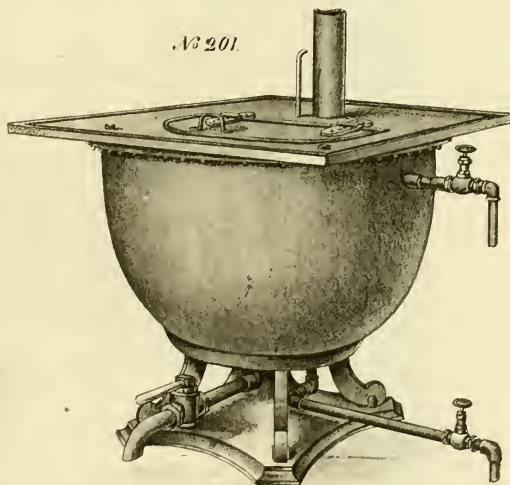


No 199 Hard Kettle

No 200
Clothes Wringer

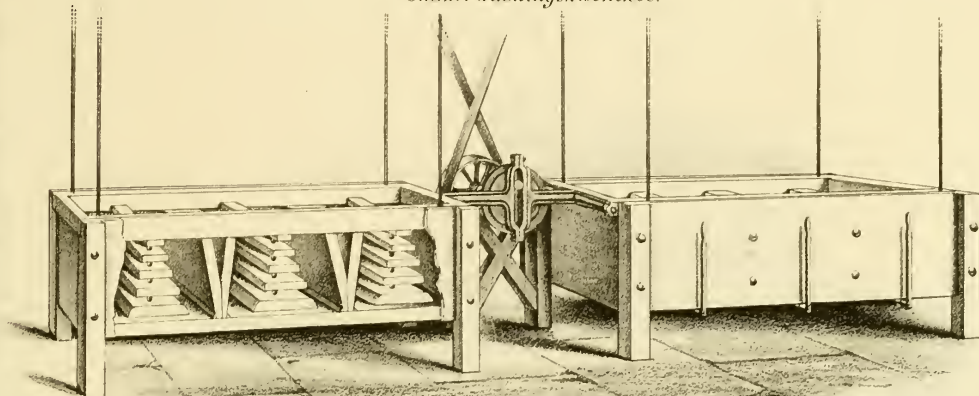


No 201

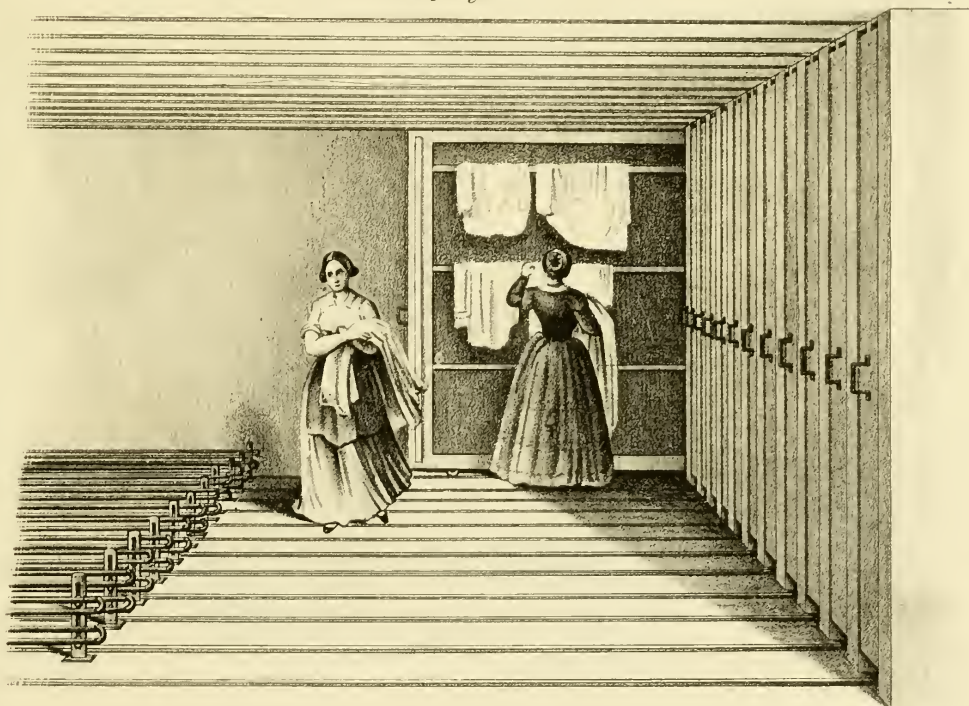


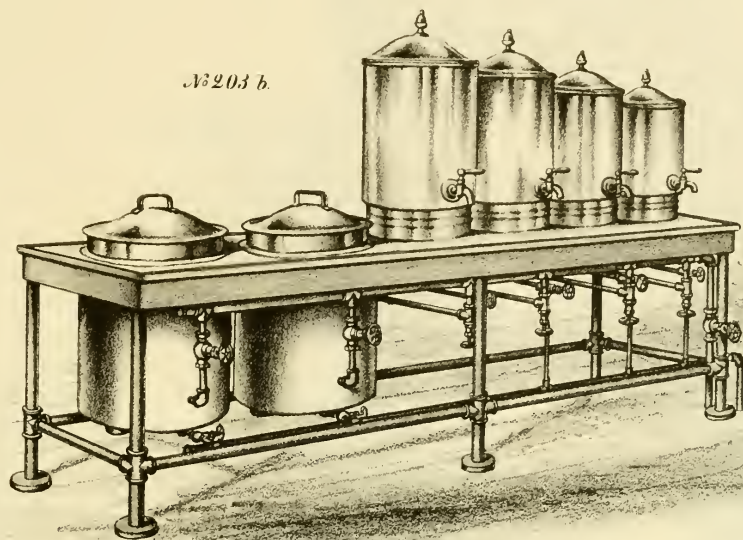
Double Steam Kettle

No 202
Shaker Washing Machines.

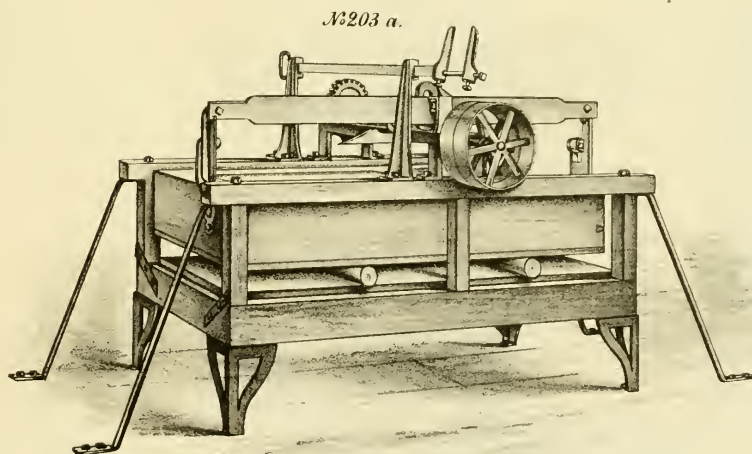


No 203
Drying Closet.





Steam Table for warming Soup - Coffee - Tea & Milk .



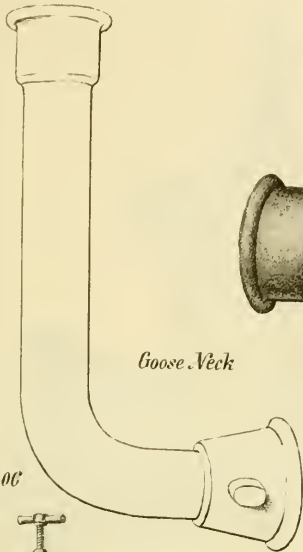
Mangle.



13901
Steam Carving Table and Dishes
with Platters & Covers



A3205



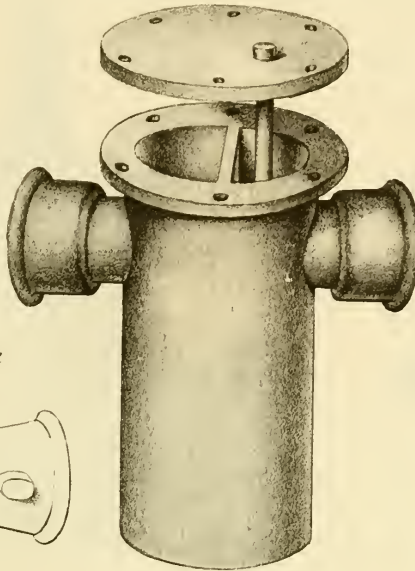
Goose Neck

A3206



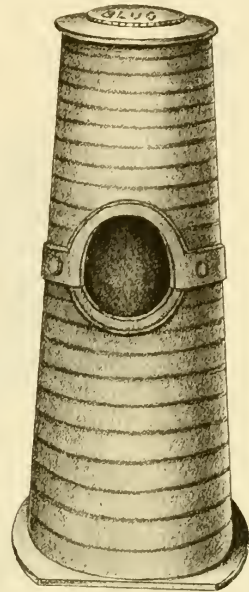
Fire Plug

A3208



Gas Drip with Seal

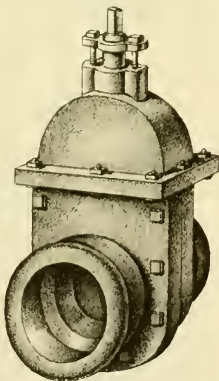
A3207



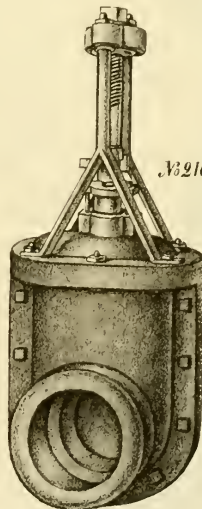
Fire Plug Case.

A3209

*Gas or Water Stop
(Short Pattern)*



A3210



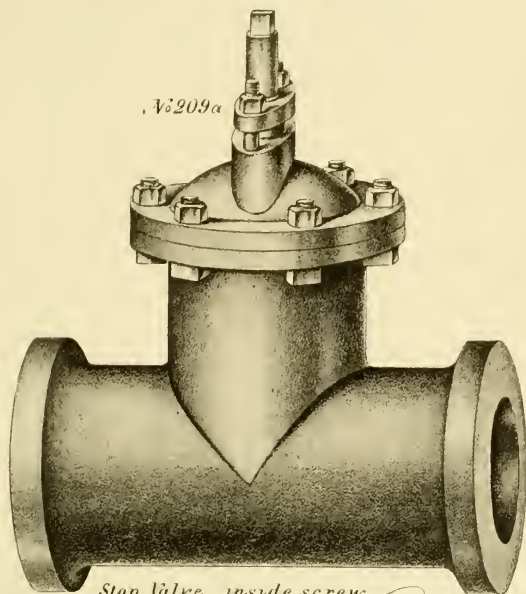
*Gas or Water Stop
for Streets*

A3211



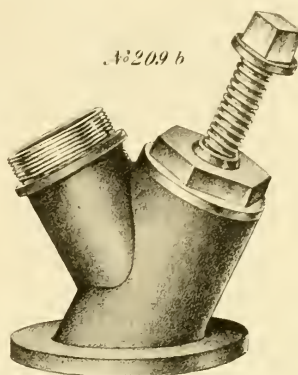
Gas or Water Stop Case.

No 209a



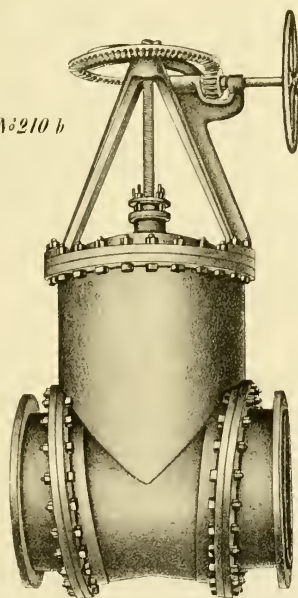
Stop Valve, inside screw.

No 209b



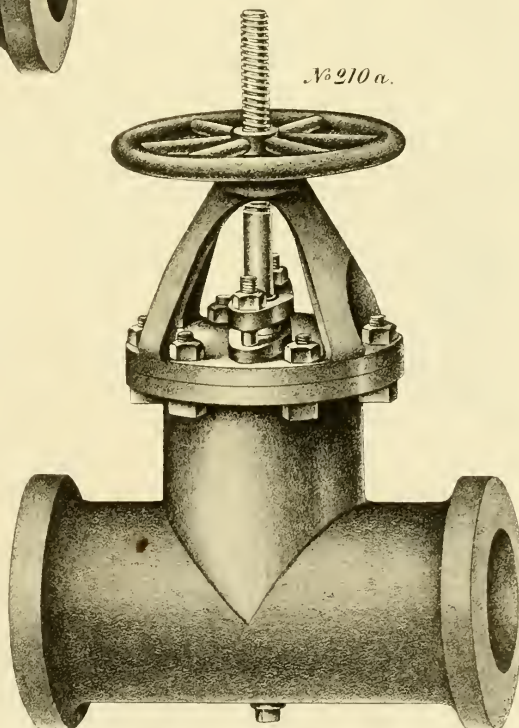
Hydrant Valve.

No 210b



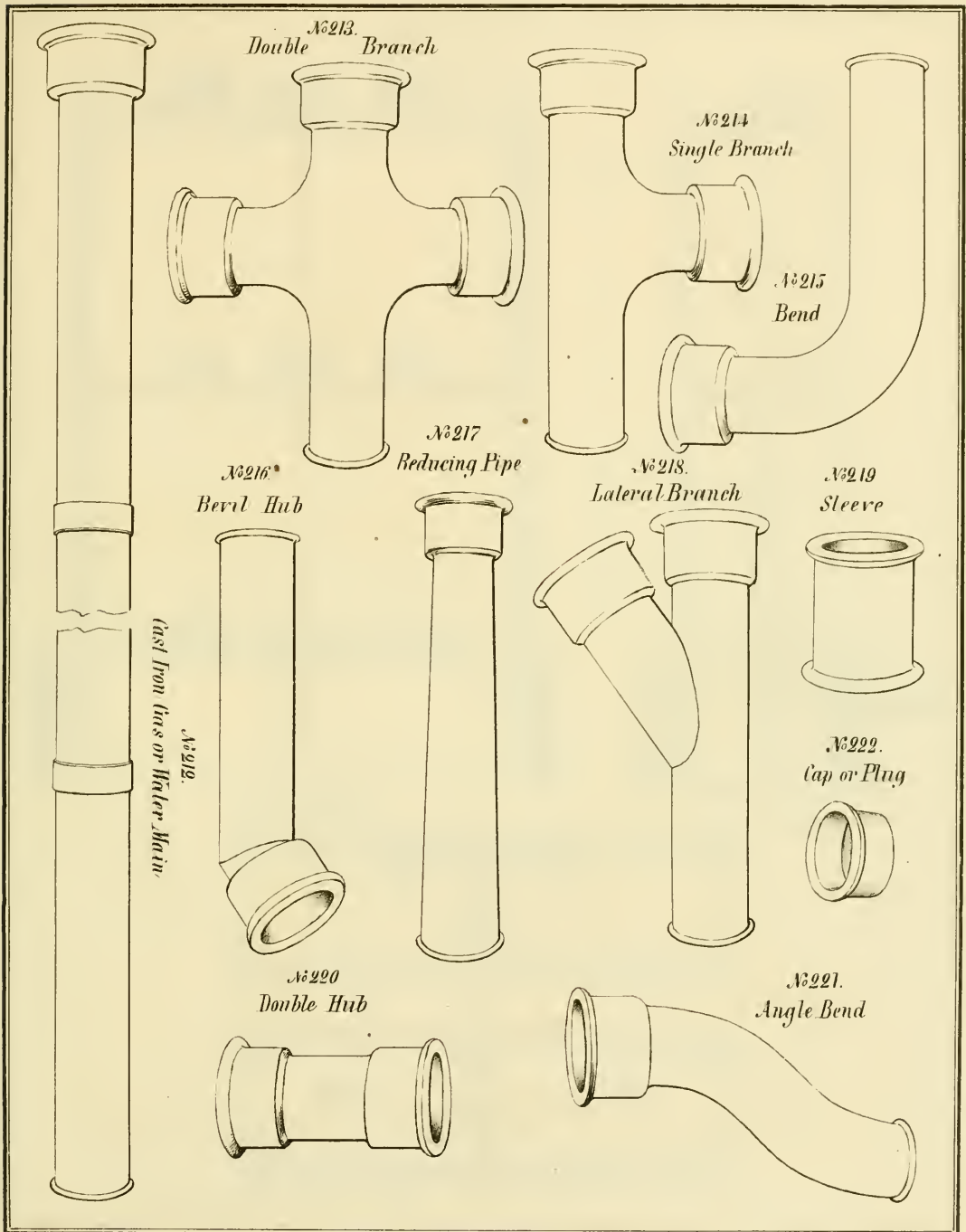
30" stop Valve
flanged Ends. — 1/30 full size

No 210a



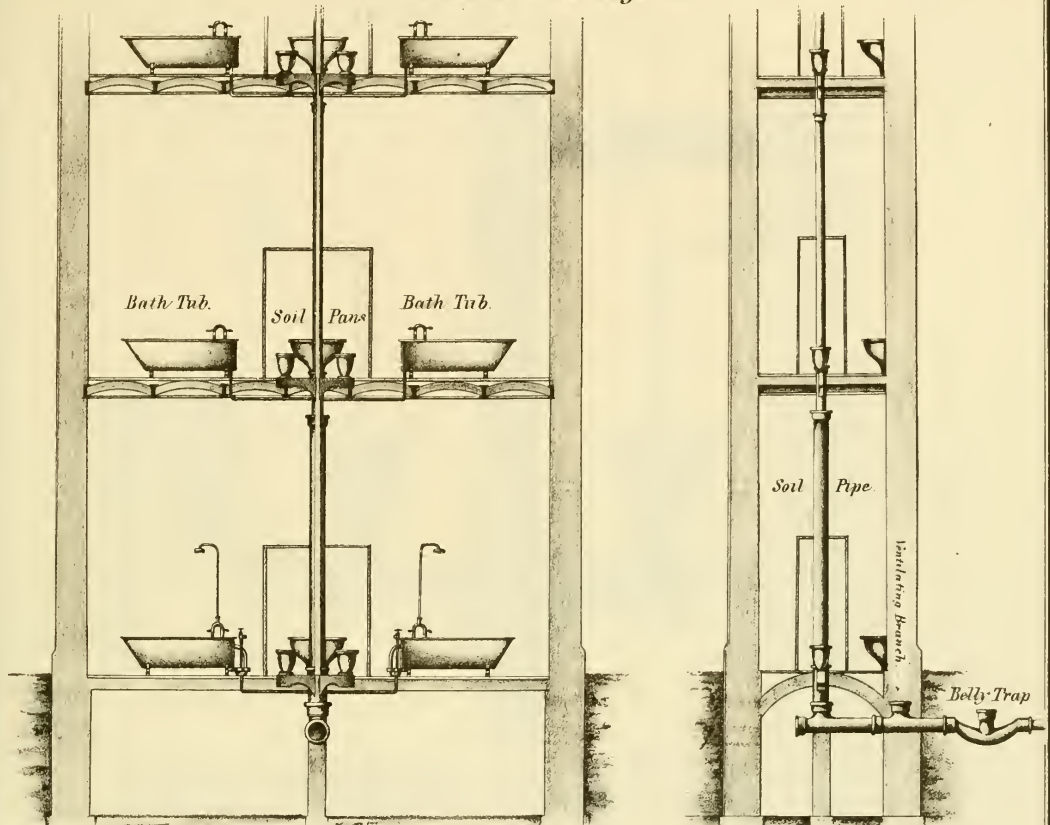
Stop Valve, outside screw.





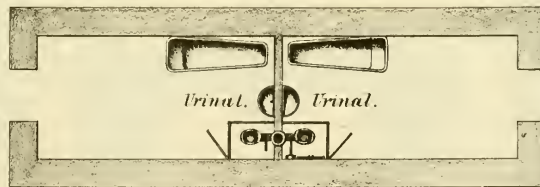


No 223 Water Closet Arrangements.

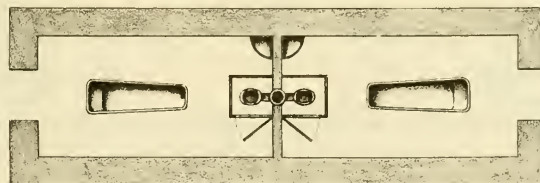


Side Elevation.

End Elevation.

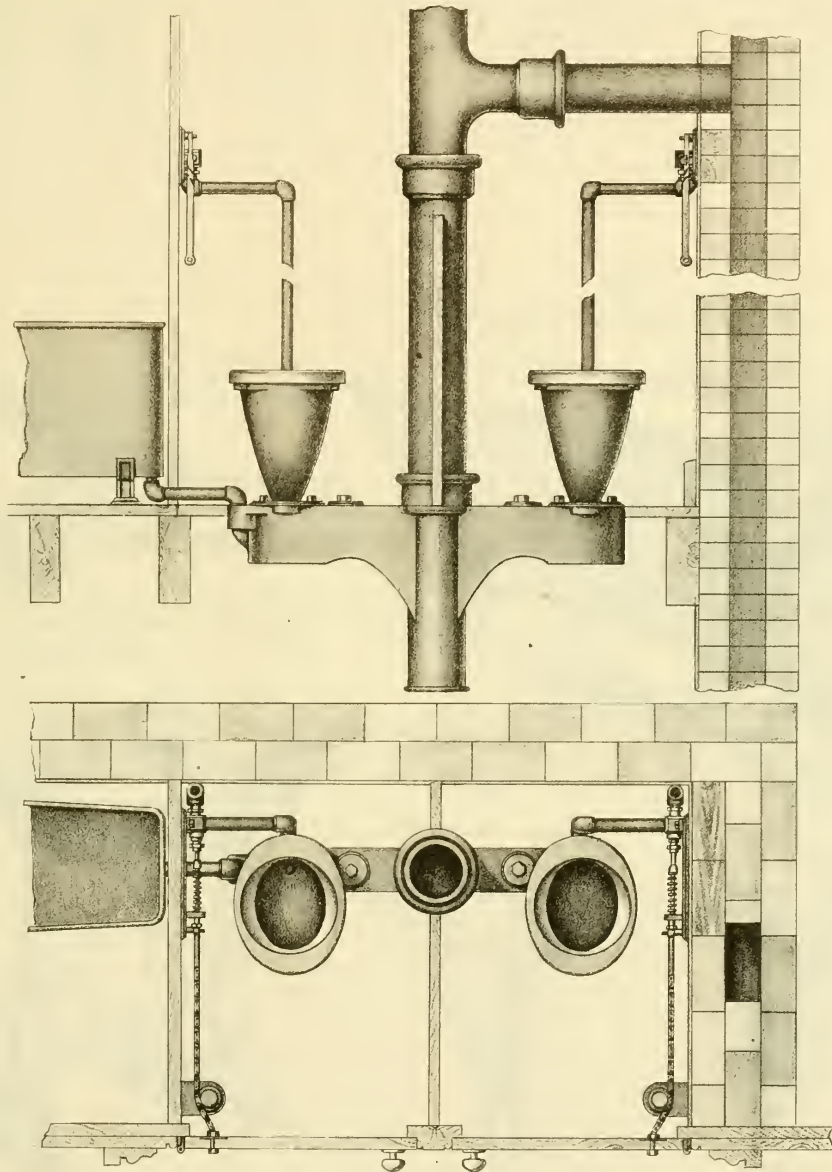


Plans.

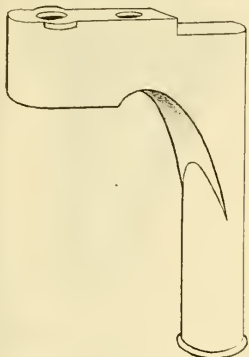


N^o 223 ½

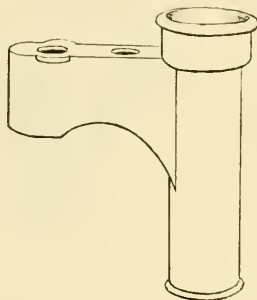
Plan of Water Closet Arrangements



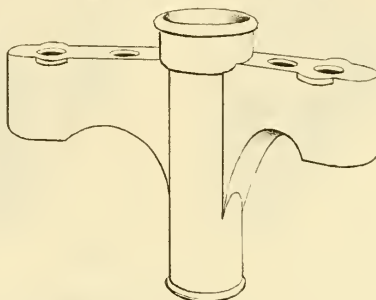
Nº 224 Single Soil Branch.



Nº 225 Single Soil Branch

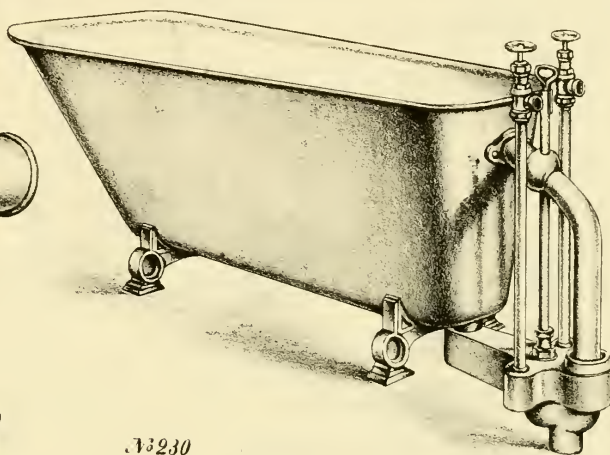


Nº 226 Double Soil Branch.



Nº 228.

Bath Tub with Supply, Waste & Overflow Combined.



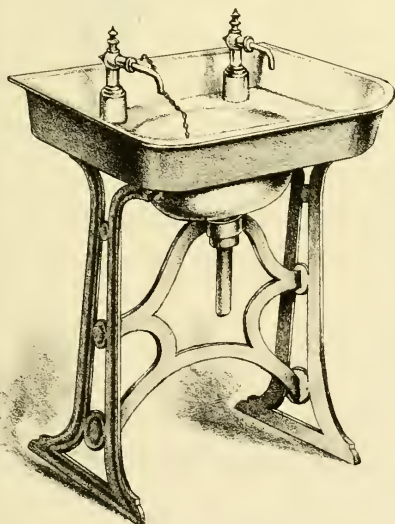
Nº 227

*Reservoir Valve
with Strainer*

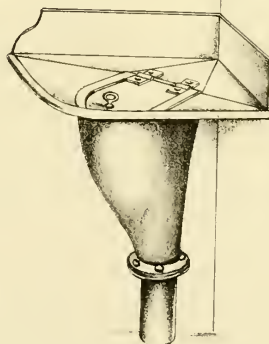


Nº 229.

*Wash Basin with Feet & Waste & Cocks for
Hot & Cold Water.*

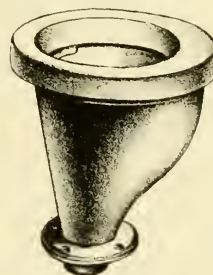


Nº 230



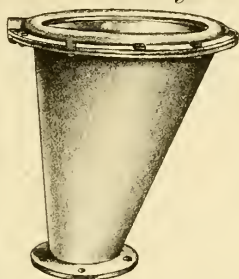
Slop Hopper with Lid.

Nº 231.



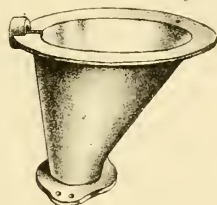
Soil Pan.

No 232 Soil Pan, large Pattern.



No 233.

Soil Pan with Flanges.



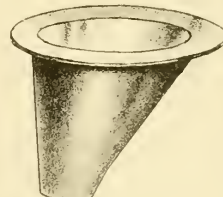
No 234.

Soil Pan, Plain.



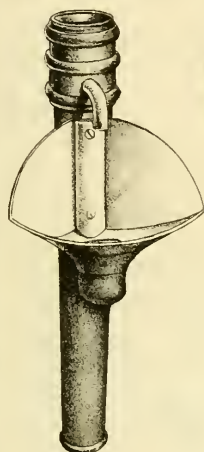
No 235.

Urinal Pan

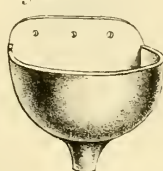


No 236

Urinal with Branch Half circle Urinal.

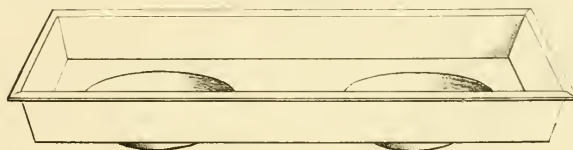


No 237



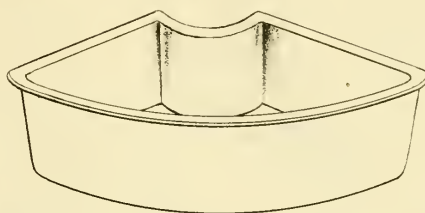
No 238.

Two Basin Sink



No 239

Corner Sink



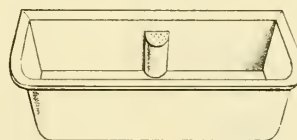
No 240.

Wash Bowl.



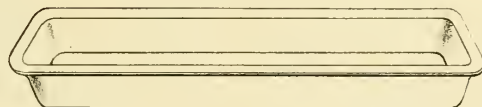
No 242.

Sink with Overflow.



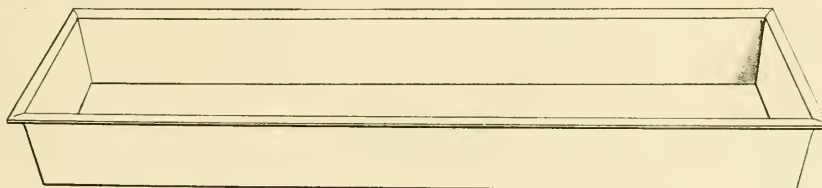
No 241

Round Cornered Sink

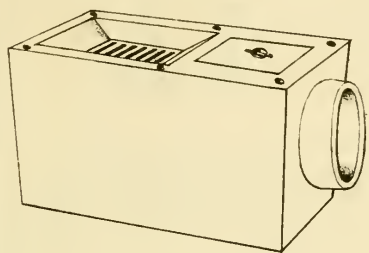


No 243.

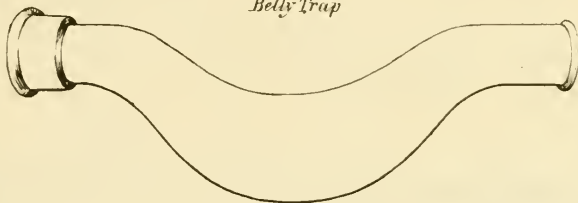
Sink of large Size.



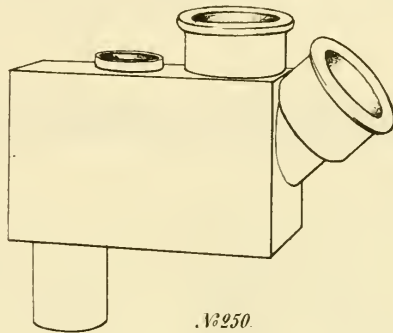
N^o 244.
Box Drain Trap.



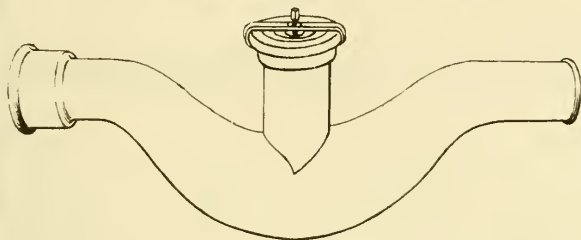
N^o 245
Belly Trap



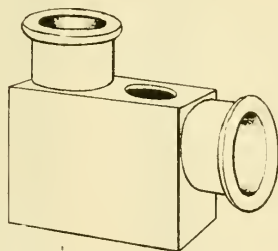
N^o 247 Lateral Branch Box Trap.



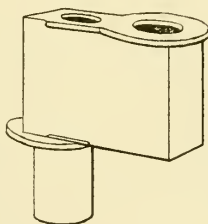
N^o 246 belly Trap with hand hole to clean.



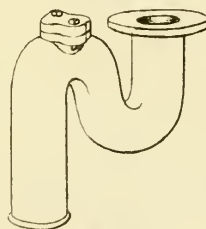
N^o 248.
Right Angle Box Trap



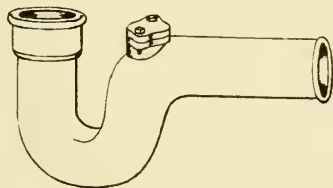
N^o 249.
Soil Pan Trap



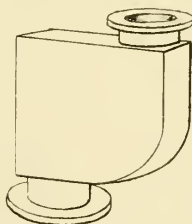
N^o 250
S Trap.



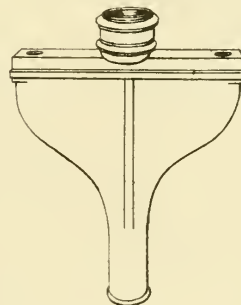
N^o 251
U Trap



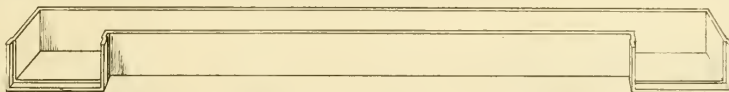
N^o 252.
Soil Pan Trap with Flanges



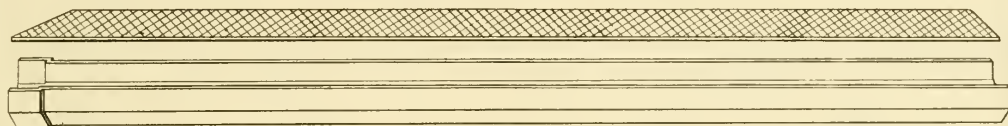
N^o 253
Urinal Branch



No 254
Square Gutter return Ends



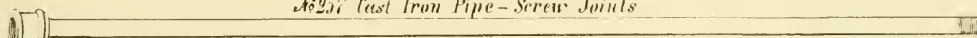
No 255
Hexagonal Pattern Gutter & Cover



No 256
London Pattern Gutter & Cover



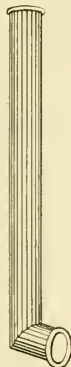
No 257 *Cast Iron Pipe - Screw Joints*



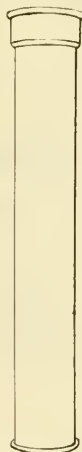
No 258
Spout Case



No 259
Spout Case



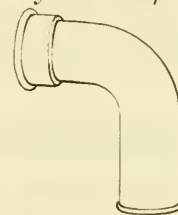
No 260
Smoke or Soil Pipe



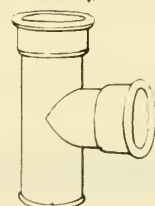
No 261
Lateral Branch for Sm.P



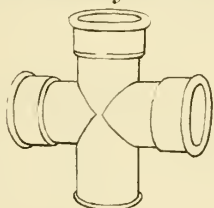
No 262
Bend for Smoke Pipe



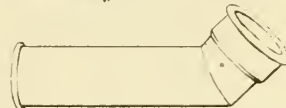
No 265
Single Branch for Sm.P



No 263
Double Branch for Smoke Pipe

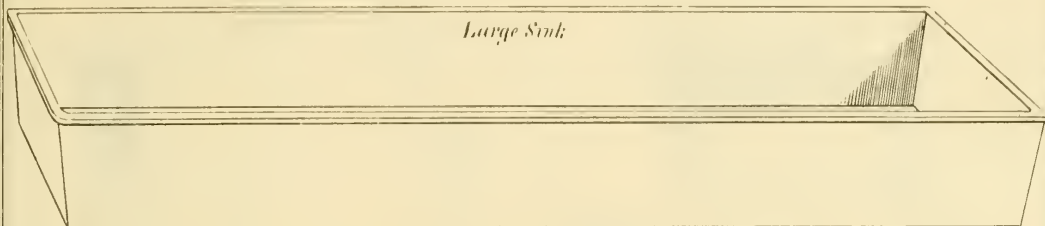


No 264
Bent Hub for Smoke Pipe

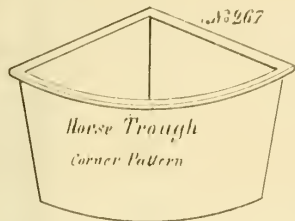


A3266

Large Sink

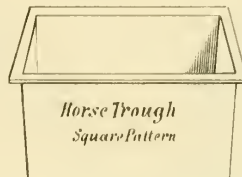


A3267



Horse Trough
Corner Pattern

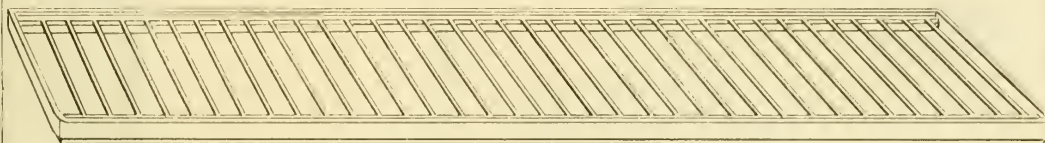
A3268



Horse Trough
Square Pattern

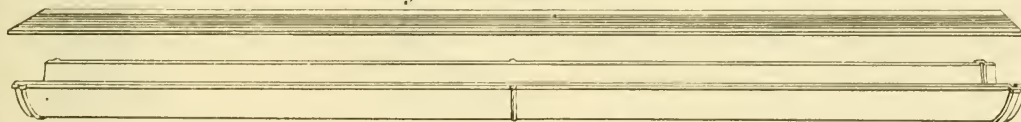
A3269

Drip Pan



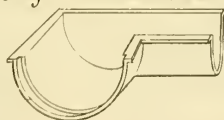
A3270

Half round Gutter & Cover



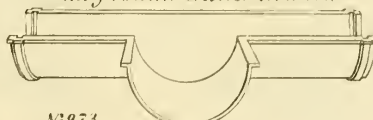
A3271

Half round Gutter Bend



A3272

Half round Gutter Branch



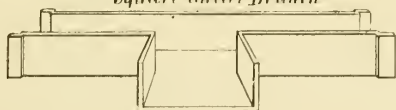
A3273

Square Gutter & Cover



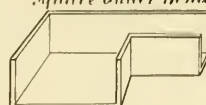
A3274

Square Gutter Branch



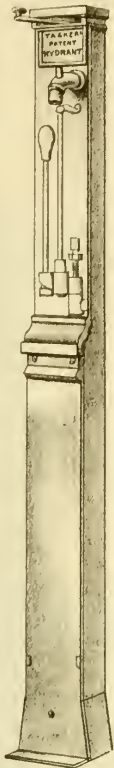
A3275

Square Gutter Bend



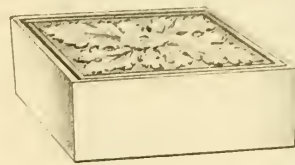
No 276

Tasker's Patent Freezing Hydrant



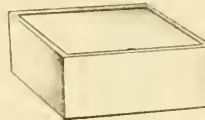
No 277

Stop Cock Box (Ornamental Lid)



No 278

Stop Cock Box (Plain lid)



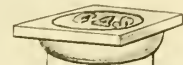
No 279

Gas Stop Box



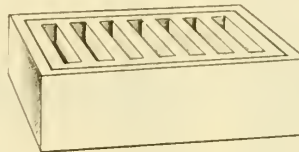
No 281

Pavement Pipe



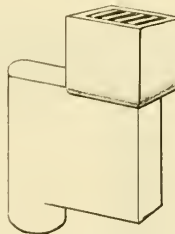
No 280

Drain Grate



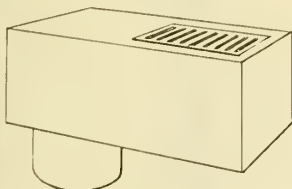
No 283

Stable Trap (Deep Pattern)



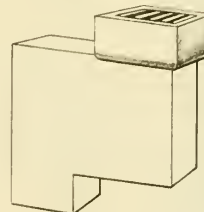
No 282

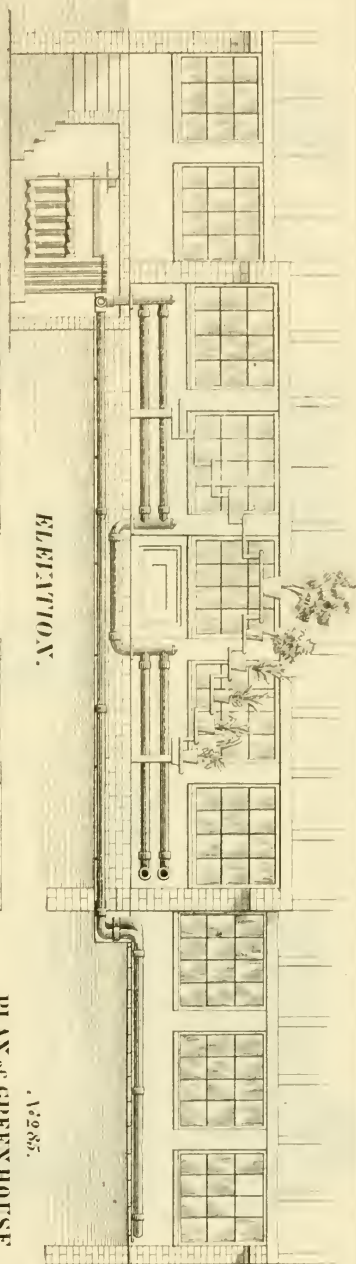
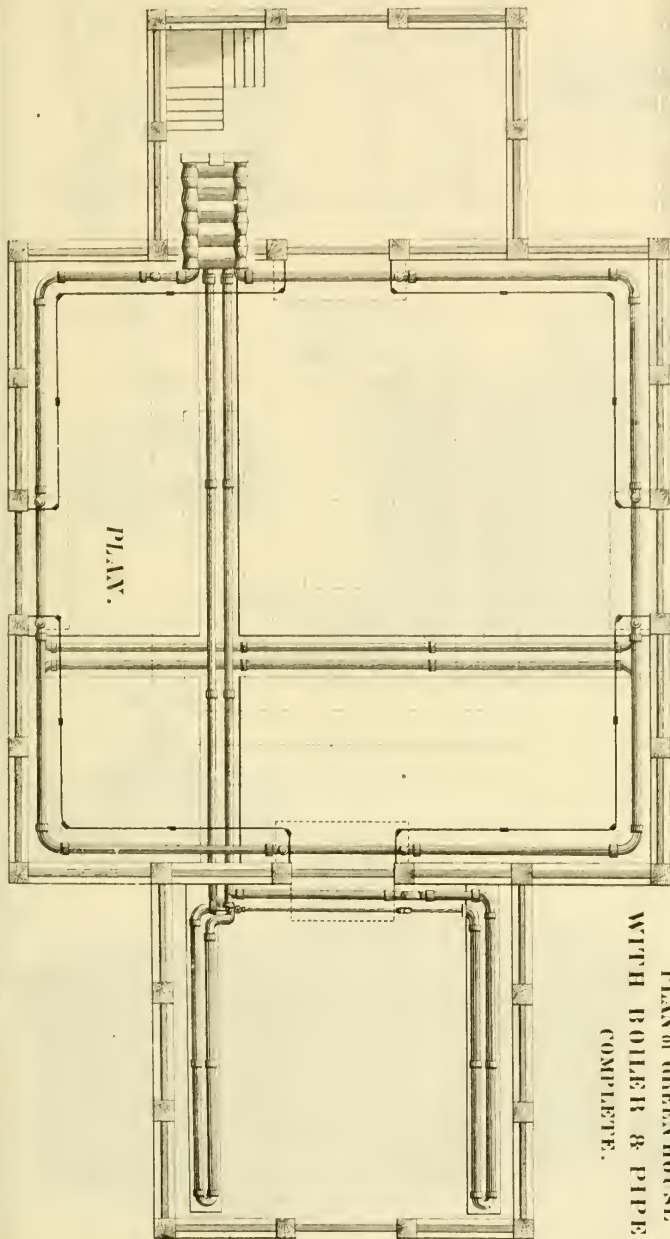
Stable Trap (Box Pattern)



No 284

Stable Trap (Shallow Pattern)

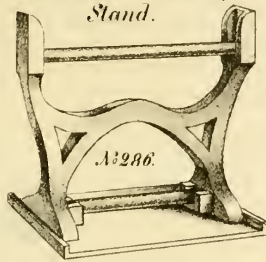




PLAN of GREEN HOUSE
WITH BOILER & PIPES
COMPLETE.

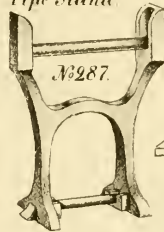
.A 285.

Wide Pattern Roller Pipe-
Stand.



No. 286.

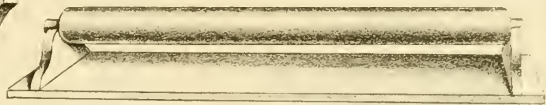
Narrow Pattern Roller
Pipe Stand



No. 287.

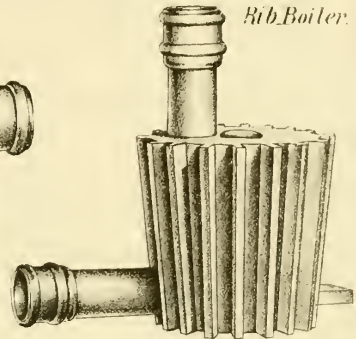
No. 288.

Expansion Pipe Stand



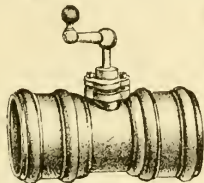
No. 292.

G.H. Single Branch -
Rib Boiler.



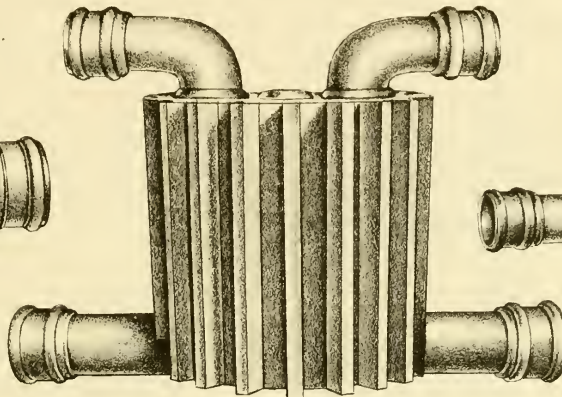
No. 289.

G.H. Throttle Valve.



No. 291.

G.H. Double Branch Rib Boiler

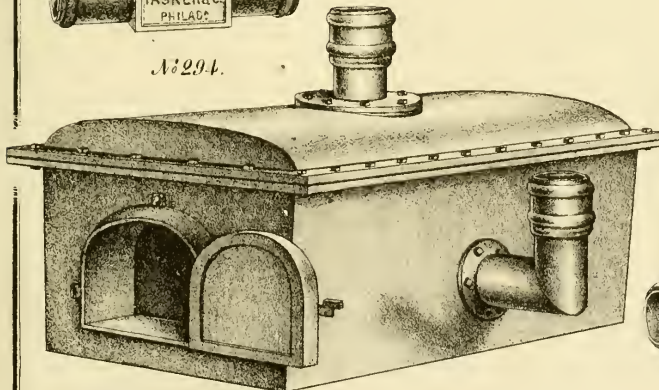


No. 290.

G.H. Screen Valve.

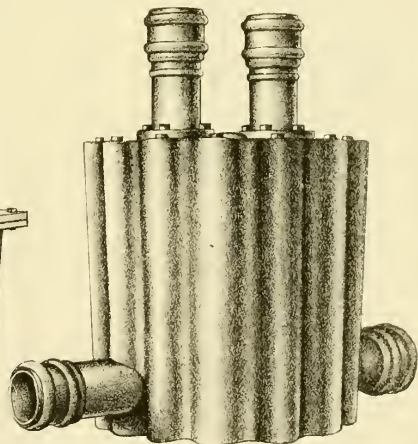


No. 294.



No. 293.

G.H. Double Branch Corrugated Boiler.

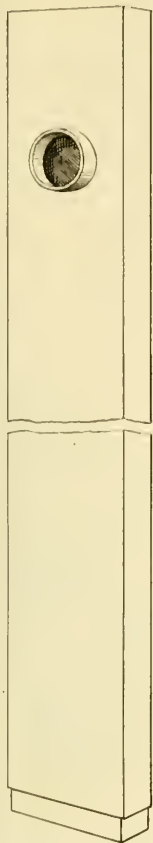


D. Pattern Green H. Boiler.

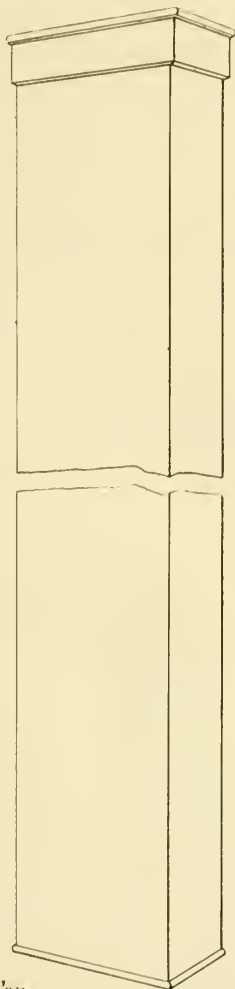


A3295

Smoke Conductor

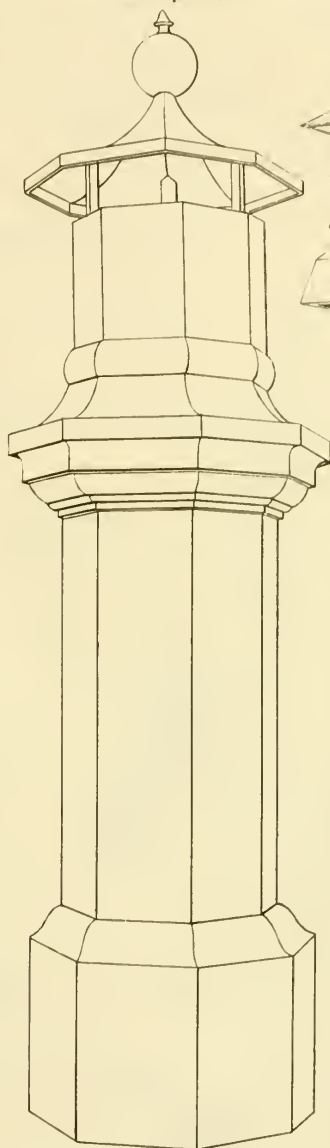


A3296



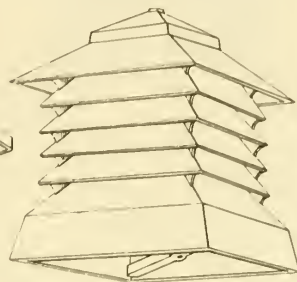
A3297

Chimney Top



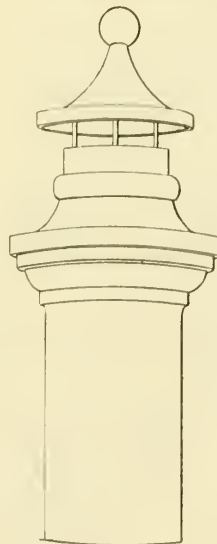
A3298

Chimney Top



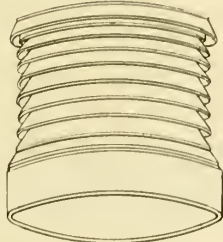
A3299

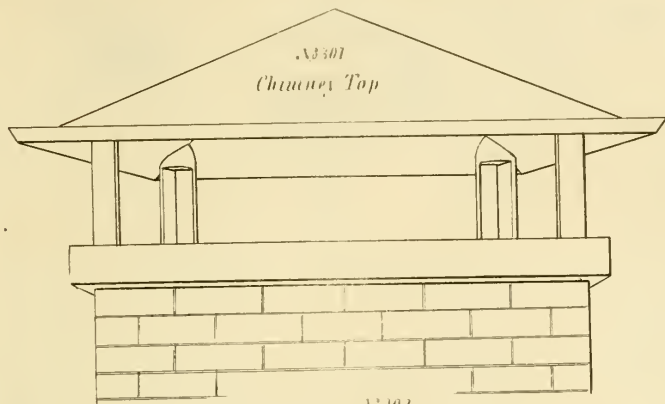
Chimney Top



A3300

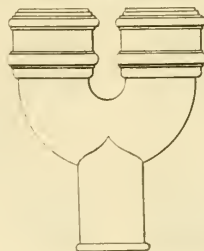
Chimney Top



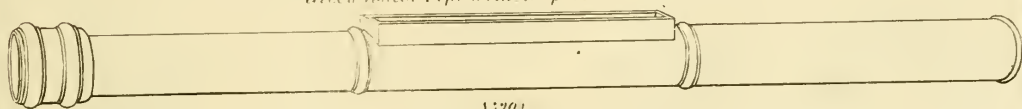


No 301
Chimney Top

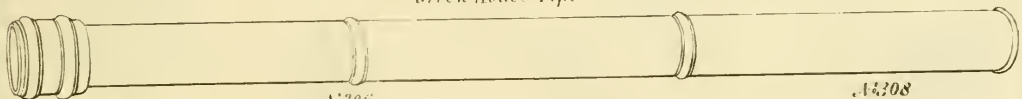
No 302
Green House Double Hub with outlet



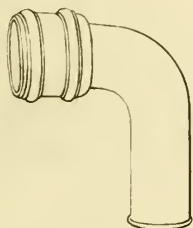
No 303
Green House Pipe with Evaporator



No 304
Green House Pipe



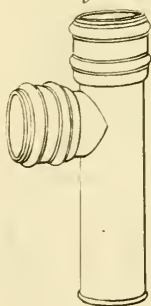
No 305
G.H. Bend



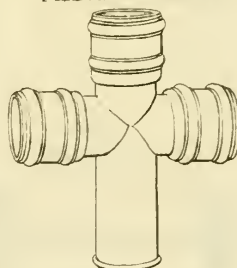
No 306
G.H. Bend Hub



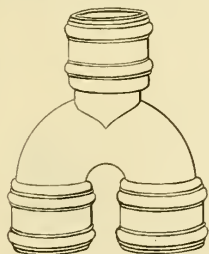
No 307
G.H. Single Branch



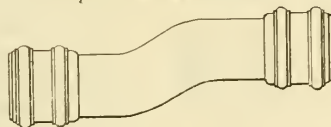
No 308
G.H. Double Branch



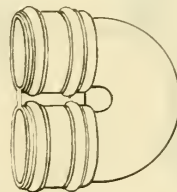
No 309
G.H. Double Hub with Hub outlet



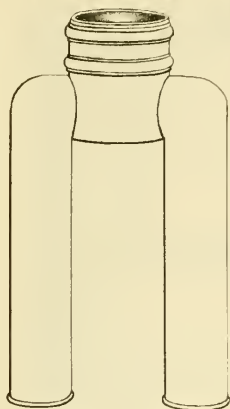
No 310
G.H. Angle Bend double Hub



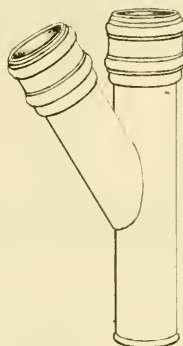
No 311
G.H. Return Bend



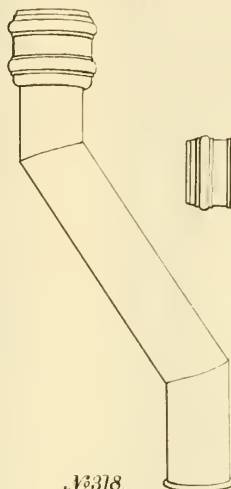
N^o 312.
G.H. Return Hub.



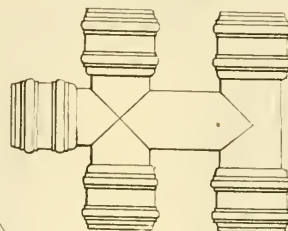
N^o 313.
G.H. Lateral Branch.



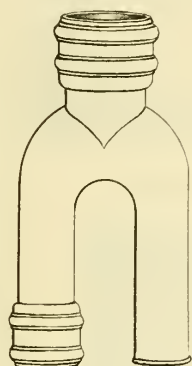
N^o 314. G.H. Angle Band.



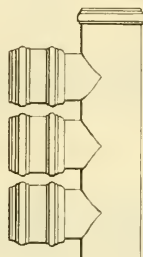
N^o 315.
G.H.-H-Branch.



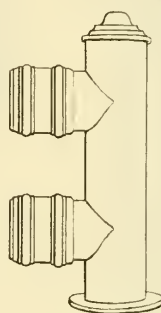
N^o 316.
G.H. Return Hub.



N^o 317.
G.H. Three Branch.



N^o 318.
G.H. Two Branch.



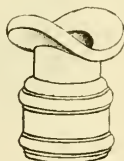
N^o 319.
G.H. U-Branch.



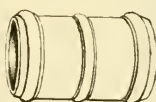
N^o 320.
G.H. Reducing Pipe.



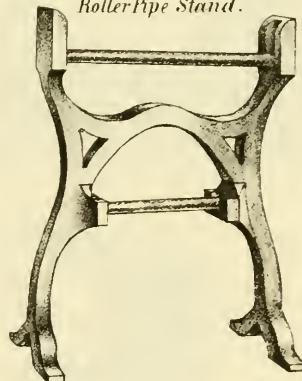
N^o 321.
G.H. Flange Hub.



N^o 322.
G.H. Sleeve.



N^o 325.
High Pattern
Roller Pipe Stand.



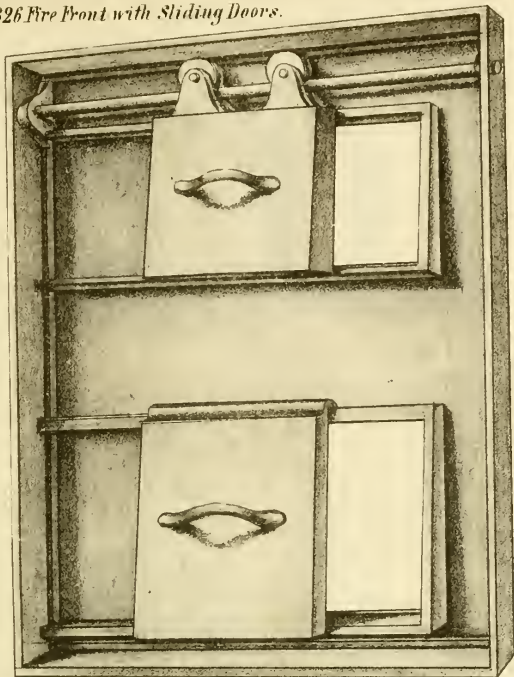
N^o 323.
G.H. Plug.



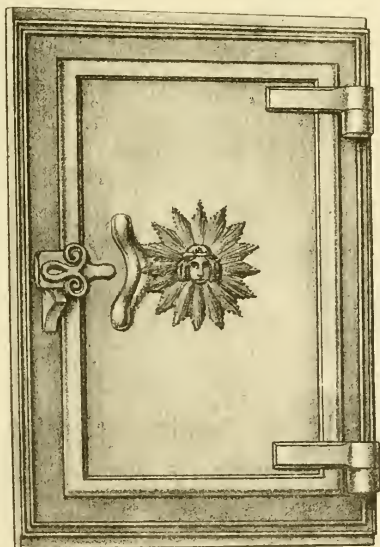
N^o 324.
G.H. Cap.



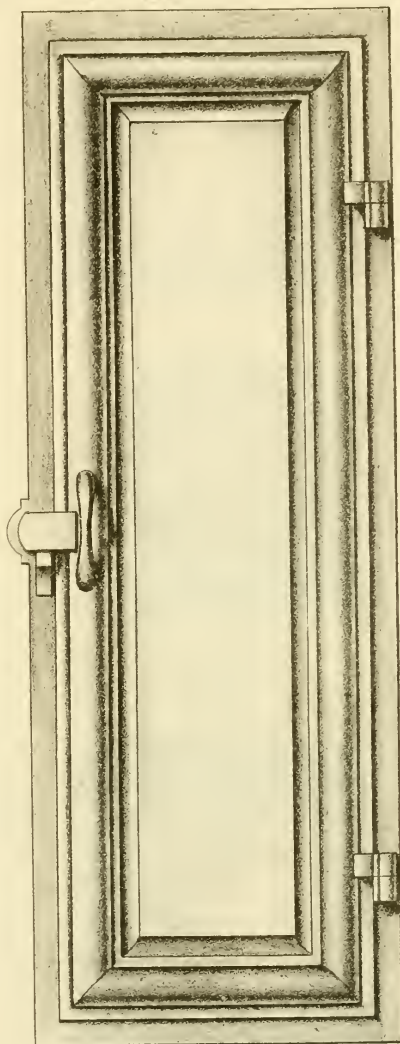
No 326 Fire Front with Sliding Doors.



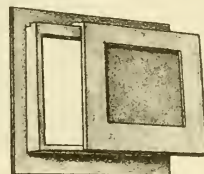
No 328 Man Hole Door (Small Pattern)



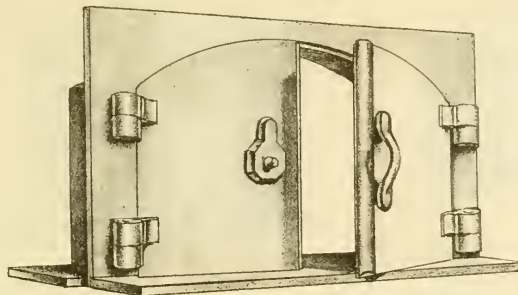
No 327 Man Hole Door.



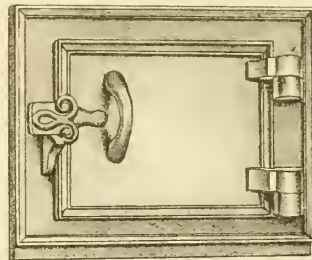
No 329 Flue Door



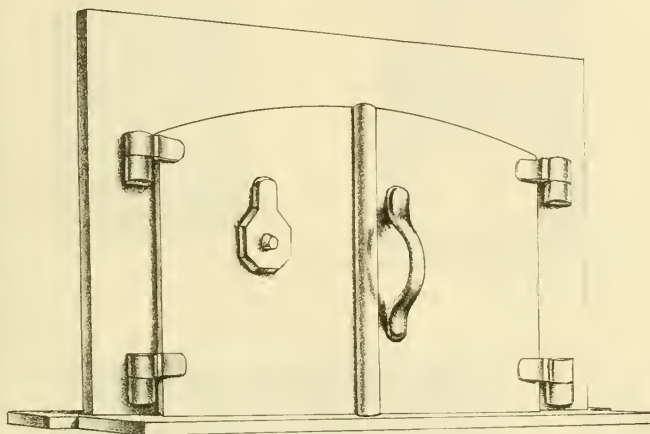
N^o 330 Bake oven Door.



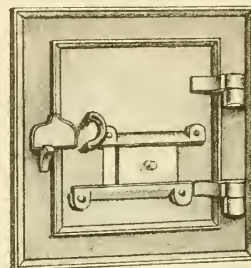
N^o 331 Flue Door.



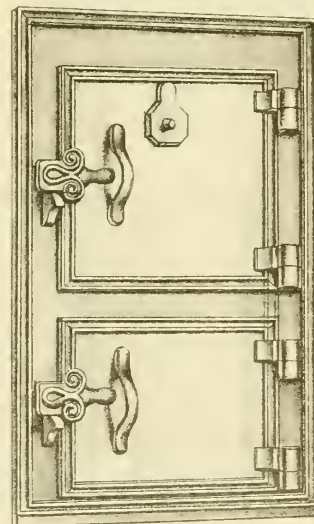
N^o 332.
Bake oven Door.



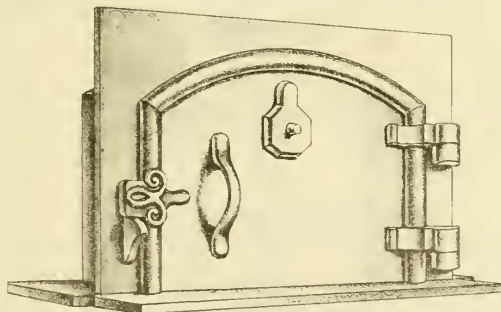
N^o 333 Flue Door



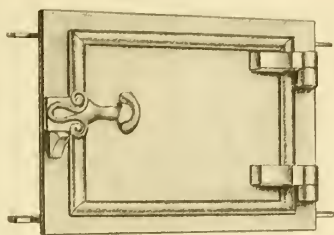
N^o 335.
Fire Door.



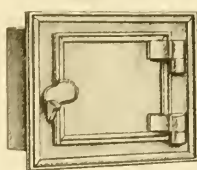
N^o 334.
Bake oven Door.



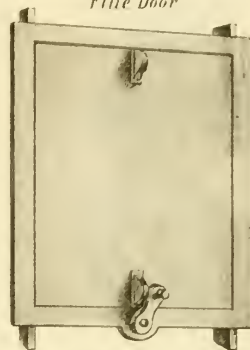
A3336
Flue Door



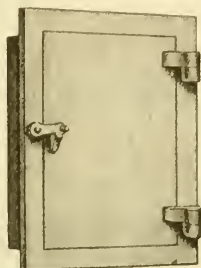
A3337
Flue Door



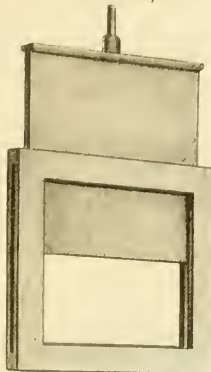
A3338
Flue Door



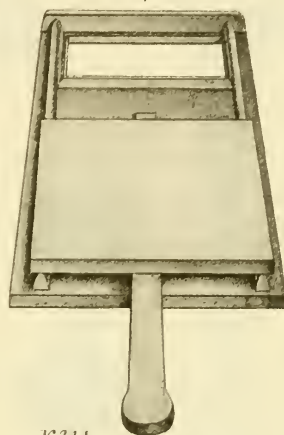
A3339
Flue Door



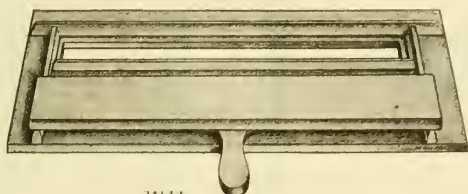
A3340
Oven Damper



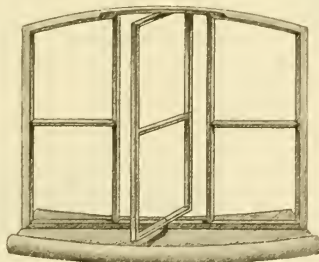
A3341
Damper



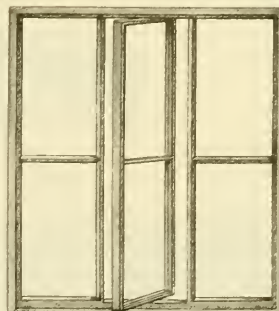
A3342
Damper



A3343
Iron Window Sash

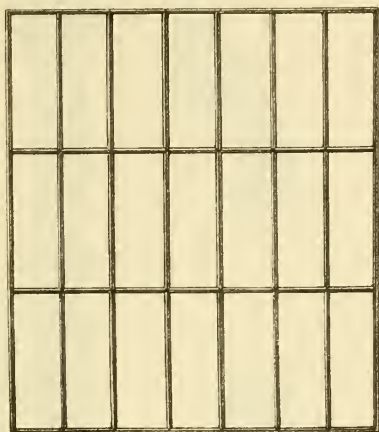


A3344
Iron Window Sash



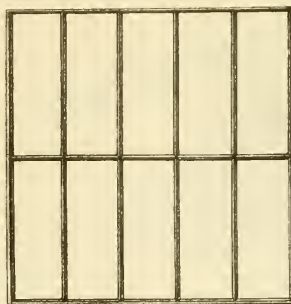
N^o 345

Iron Window Sash

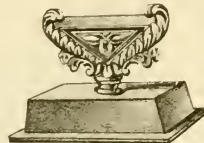


N^o 346

Iron Window Sash



N^o 353 Box Scraper



N^o 354

Scraper



N^o 348

Vault Ring



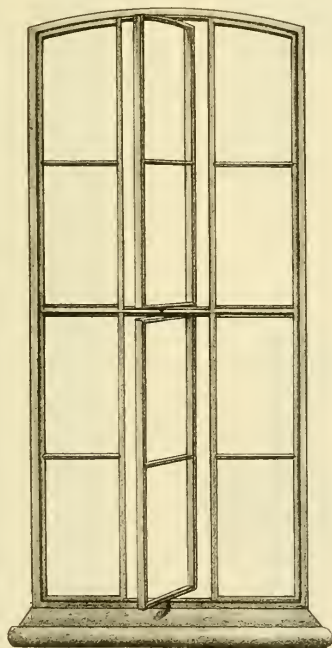
N^o 355

Scraper



N^o 347

Iron Window Sash



N^o 349

Vault Cover



N^o 356

Dumb Bell



N^o 350

Vault Grate



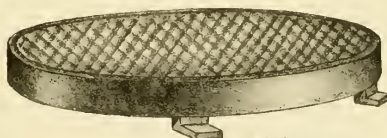
N^o 357

Door Roller



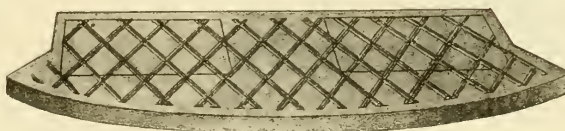
N^o 351

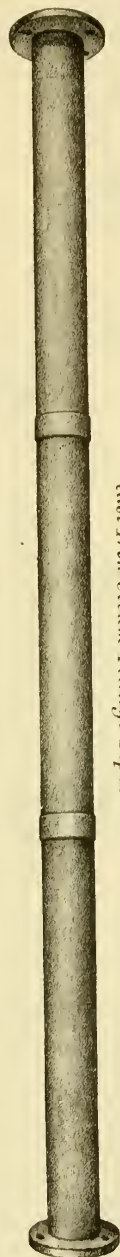
Vault Ring with Cover



N^o 352

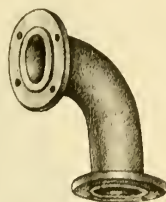
Sewer Inlet





Cast Iron Steam Flange Pipe.

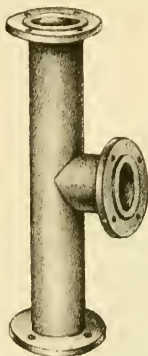
N^o 360.



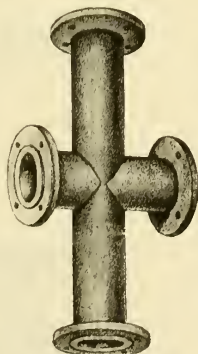
Flange Bend.

N^o 361.

Flange Single Branch.

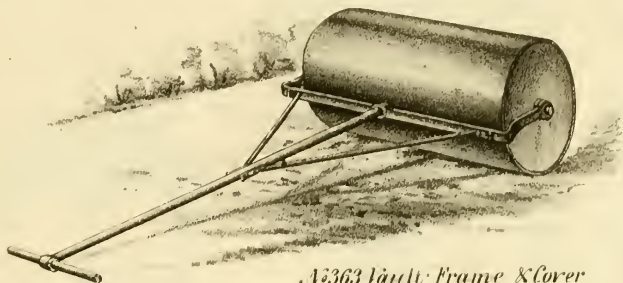


N^o 362.

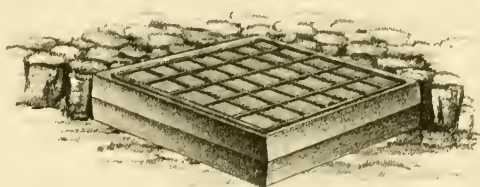


Flange Double Branch

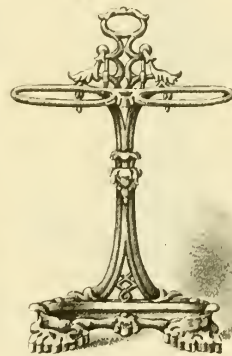
N^o 358 Garden Roller



N^o 363 Vault Frame & Cover

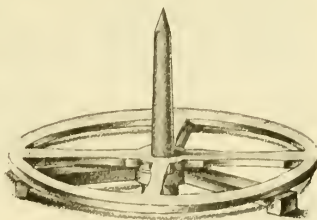


N^o 365



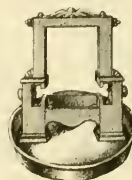
Umbrella Stand

N^o 364



Carpet Winding Machine

N^o 366.



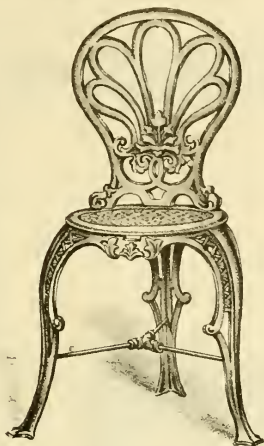
Brush Scraper

N^o 367



Pan Scraper.

A3368 Garden Chair



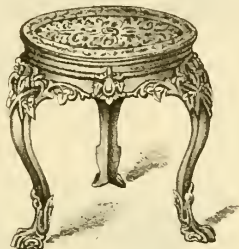
*A3372.
Table Leg*



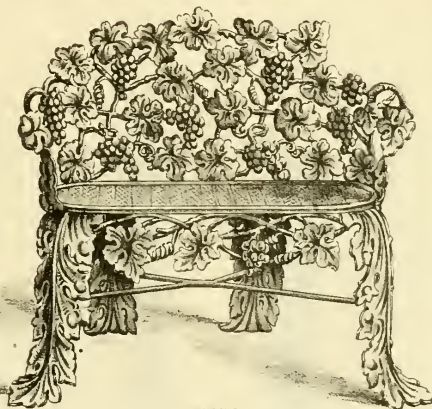
*A3374.
Mirror Frame*



*A3371.
Garden Stool*



*A3370
Double Garden Chair*



A3376



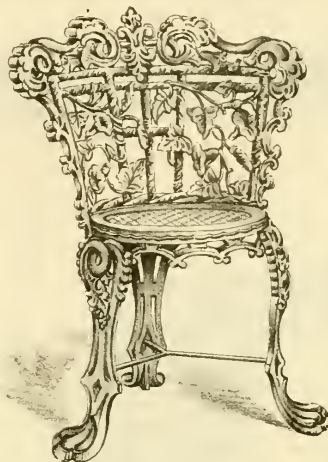
Spittoon

A3377.



Boot Jack

A3369 Garden Chair.



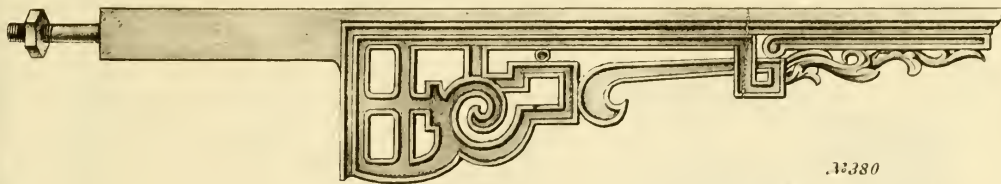
*A3373
Umbrella Stand*



*A3375
Mirror Frame*



N^o 378
Balcony Bracket



N^o 379
Mantel Bracket



N^o 380
Mantel Bracket



N^o 381
Mantel Bracket.



N^o 382
Mantel Bracket



N^o 383



N^o 384



N^o 385



N^o 386



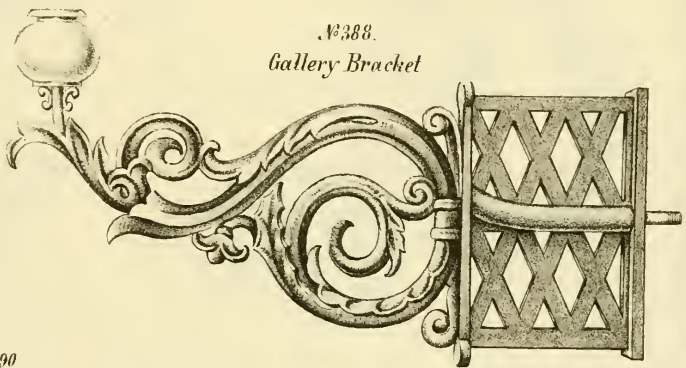
Hitching Posts



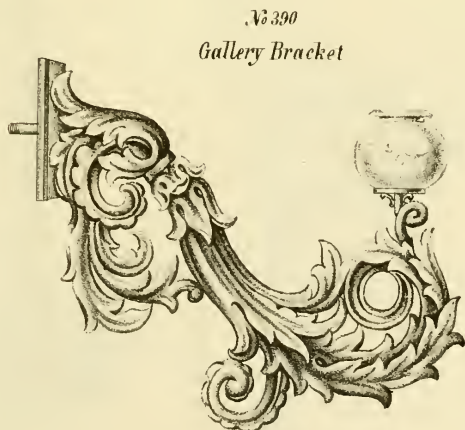
No. 387.
Gas Bracket



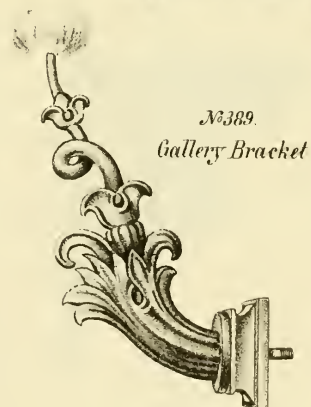
No. 391
Window Bracket



No. 388.
Gallery Bracket



No. 390
Gallery Bracket



No. 389.
Gallery Bracket

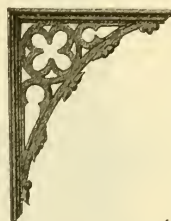
N^o 392
Capitol Bracket.



N^o 393
Gallery Bracket.



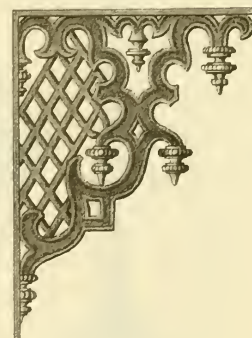
N^o 394
Mantel Bracket.



N^o 395
Mantel Bracket



N^o 396
Mantel Bracket.

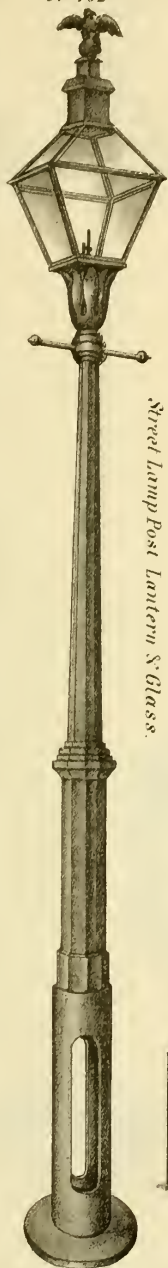


N^o 397



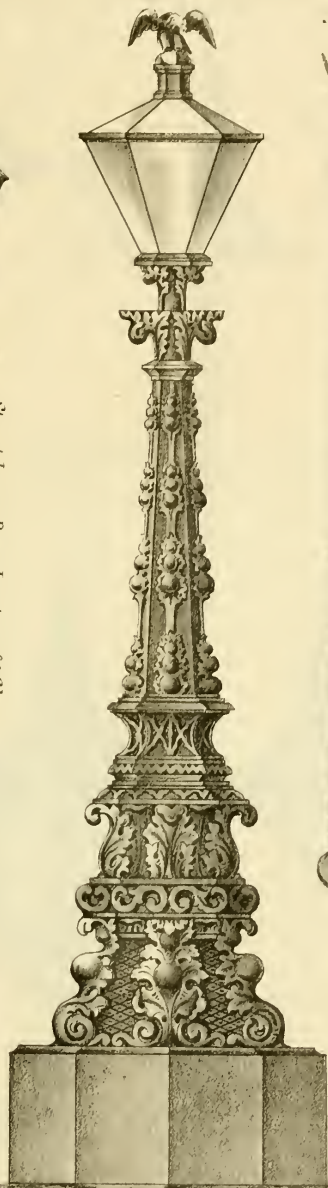
Pedestal Lamp.

A 3402



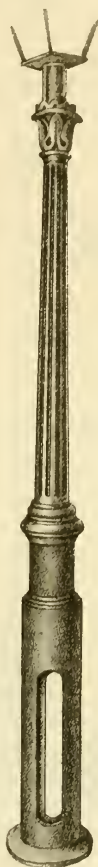
Street Lamp Post Lantern & Glass.

A 3398



Ornamental Pedestal Lamp

A 3401



Street Lamp Post Short Pattern.

A 3399



Pedestal for Lantern.

A 3400



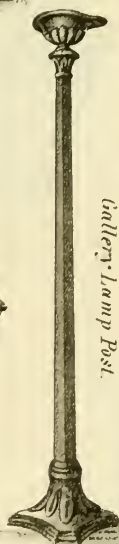
Park Lamp Post.

A 3403



Street Lantern

A 3404



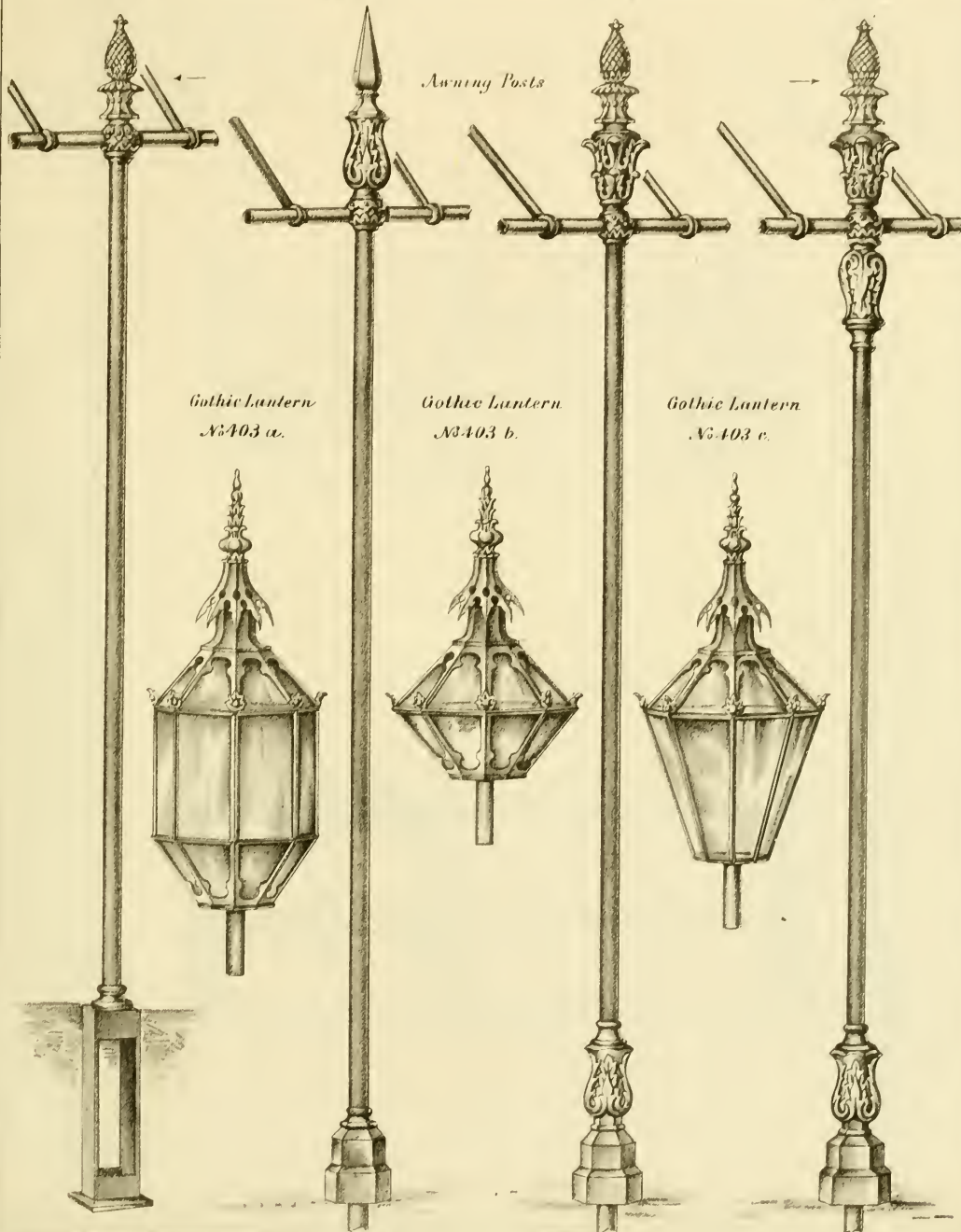
Gallery Lamp Post.

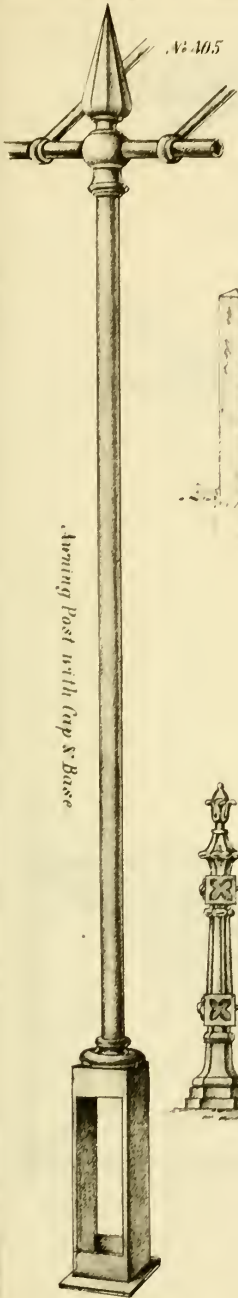
N^o 406 a

N^o 406 b

N^o 406 c

N^o 406 d

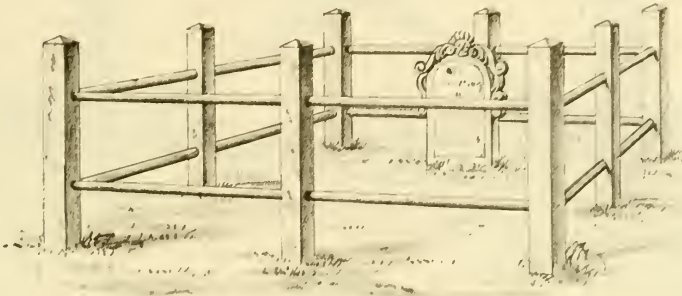




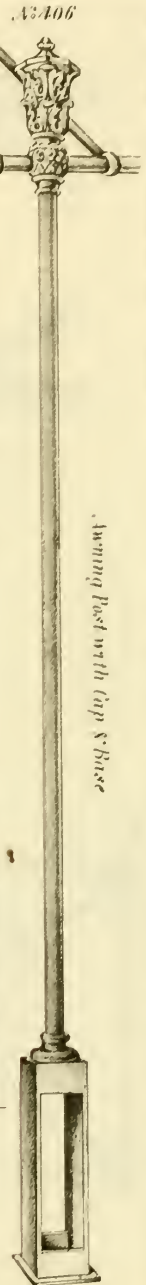
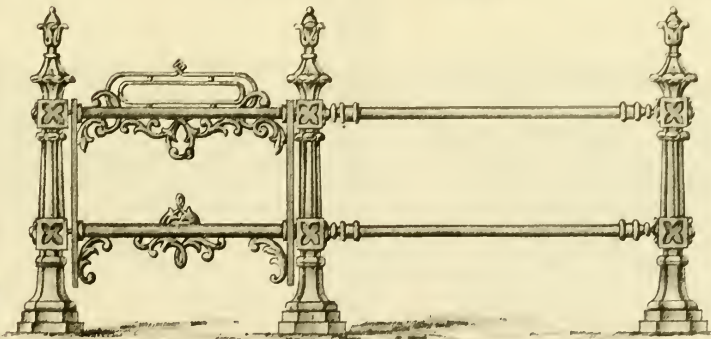
Abruing Post with Cap & Base

A2405

A2407
Gas Pipe Railing



A2408
Ornamental Gas Pipe Railing

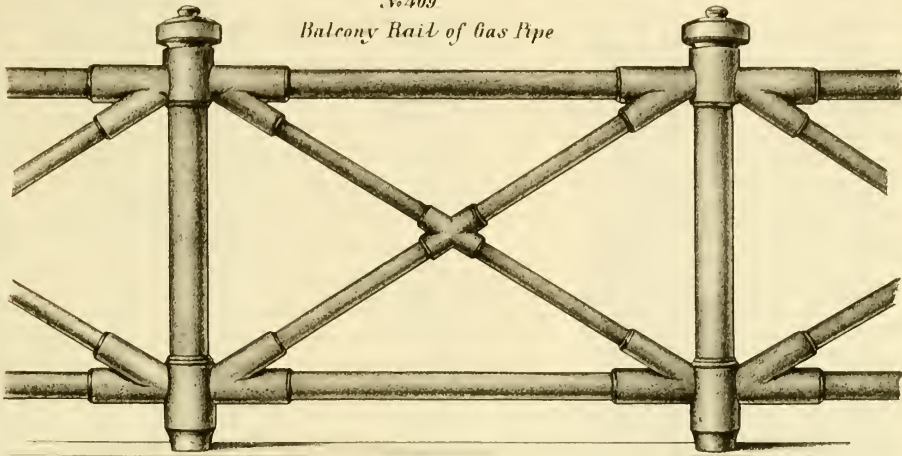


Abruing Post with Cap & Base

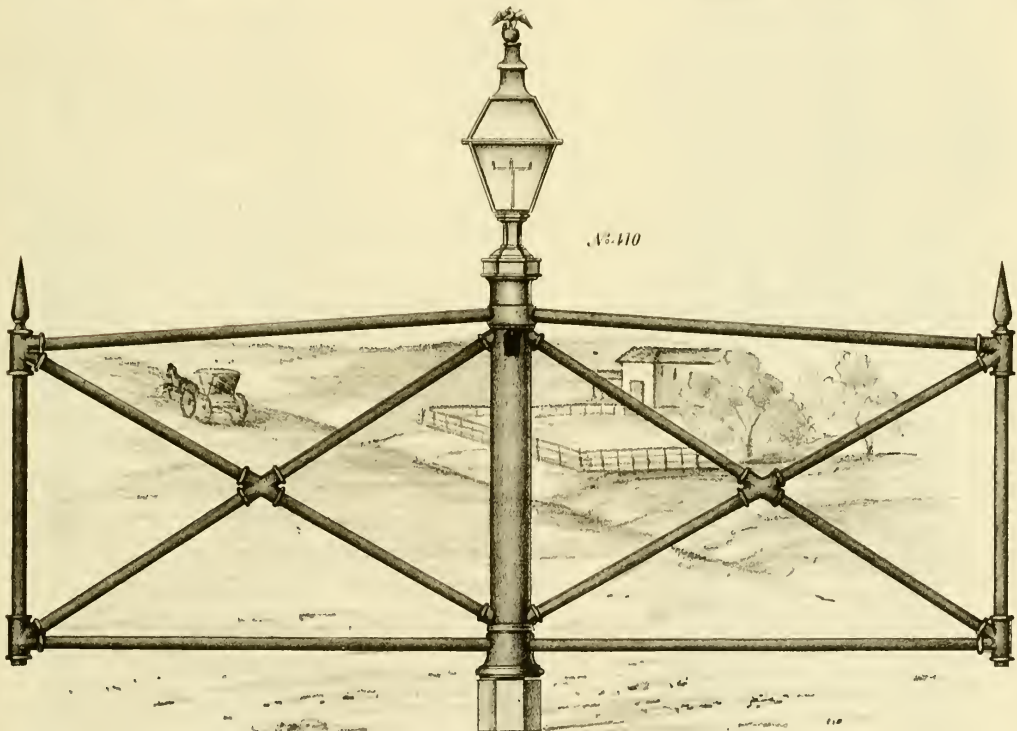
A2406



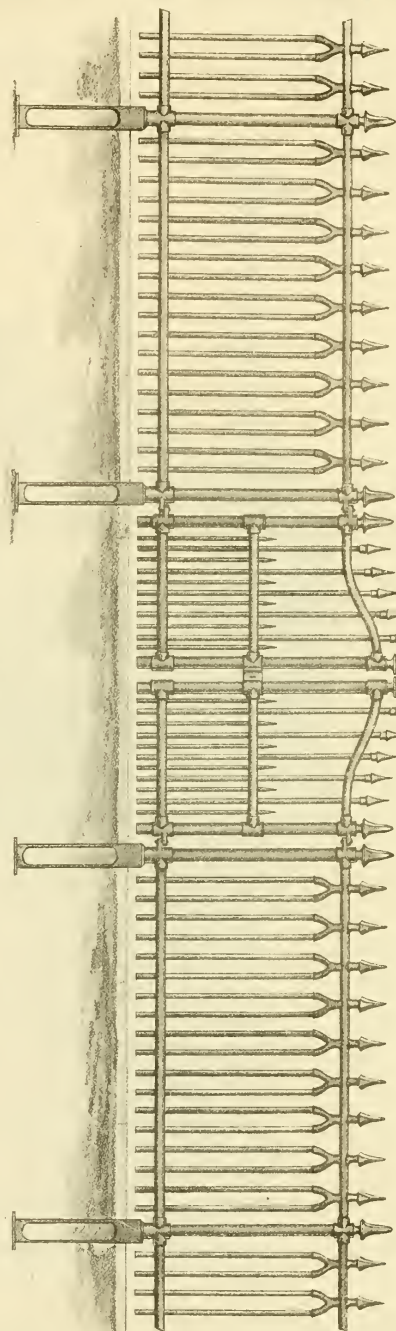
N^o 409
Balcony Rail of Gas Pipe



N^o 410



Rail Road & Turn Pipe Gate of Gas Pipe

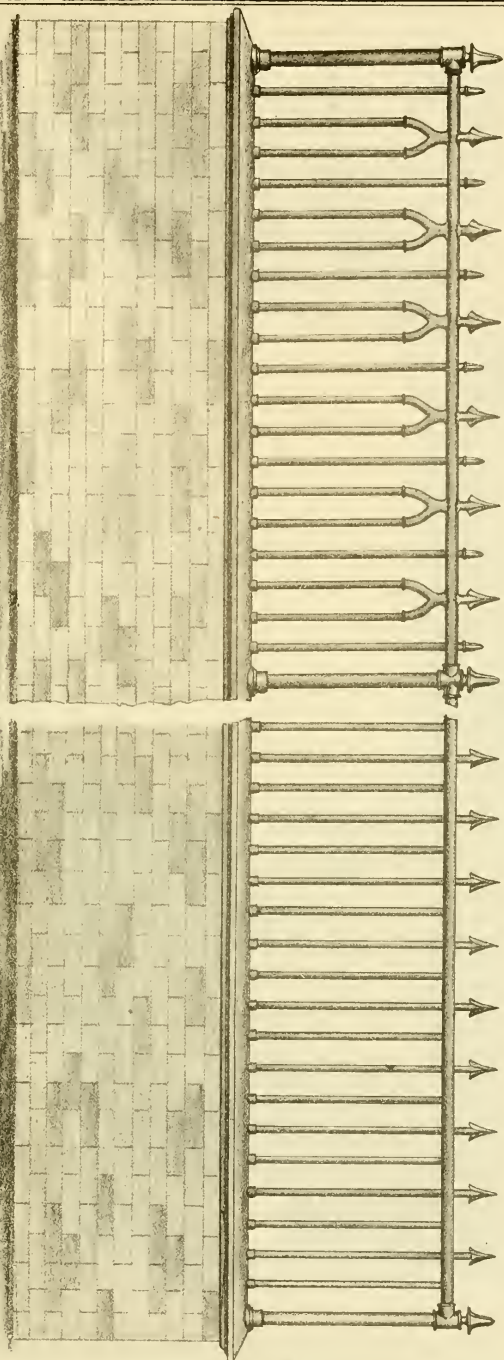


Garden or Park Railing

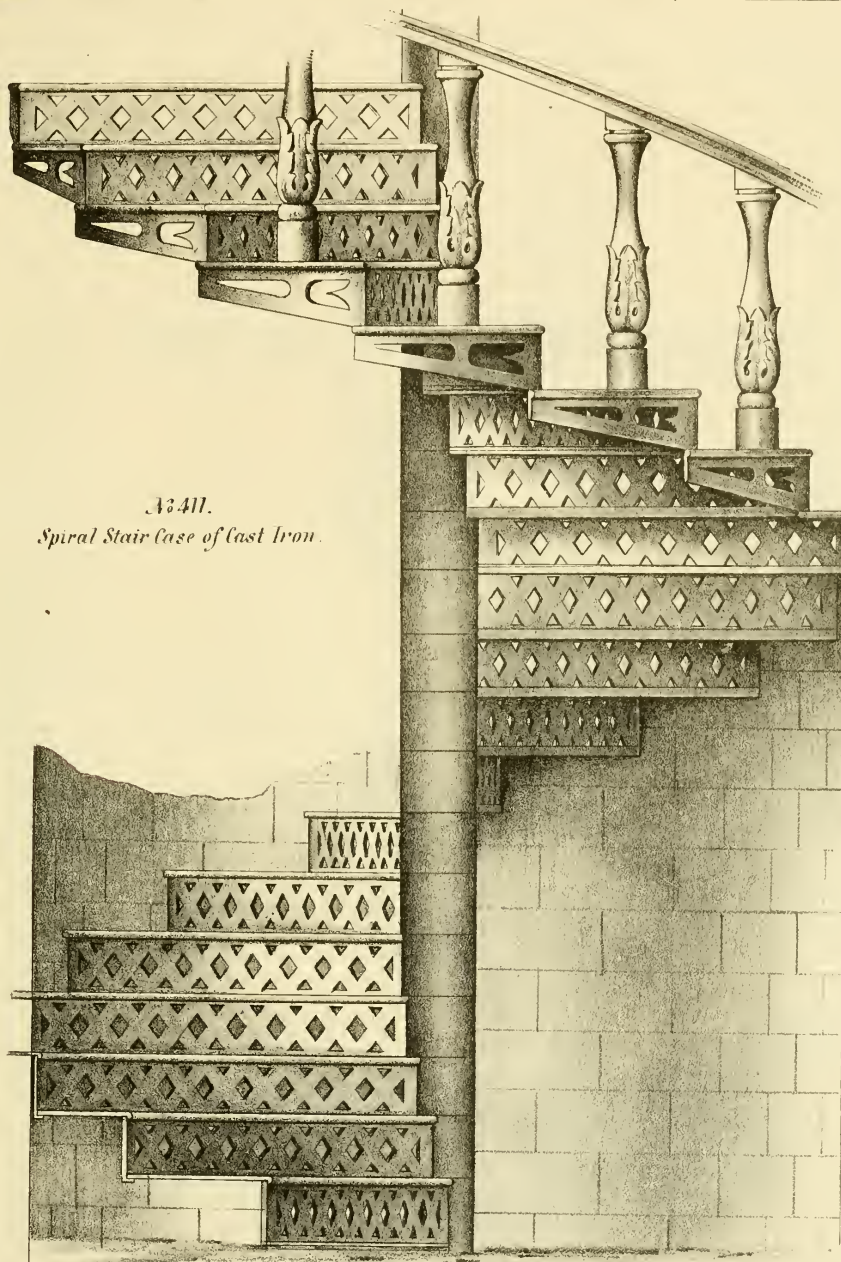
No. 10a.

of Gas Pipe.

No. 10b



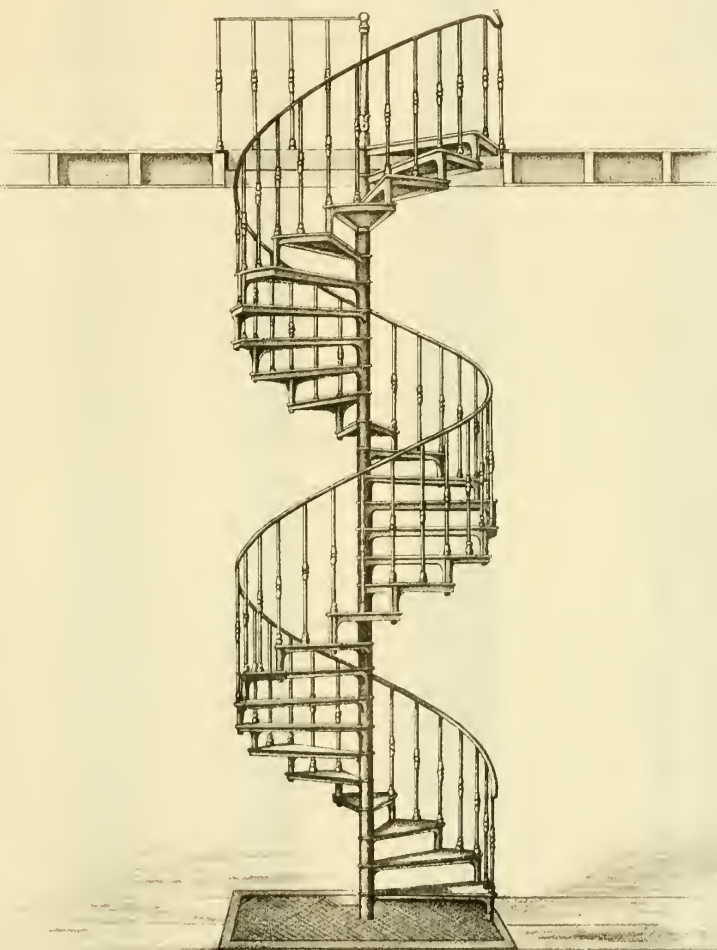
Church or Cemetery Railings of Gas Pipe



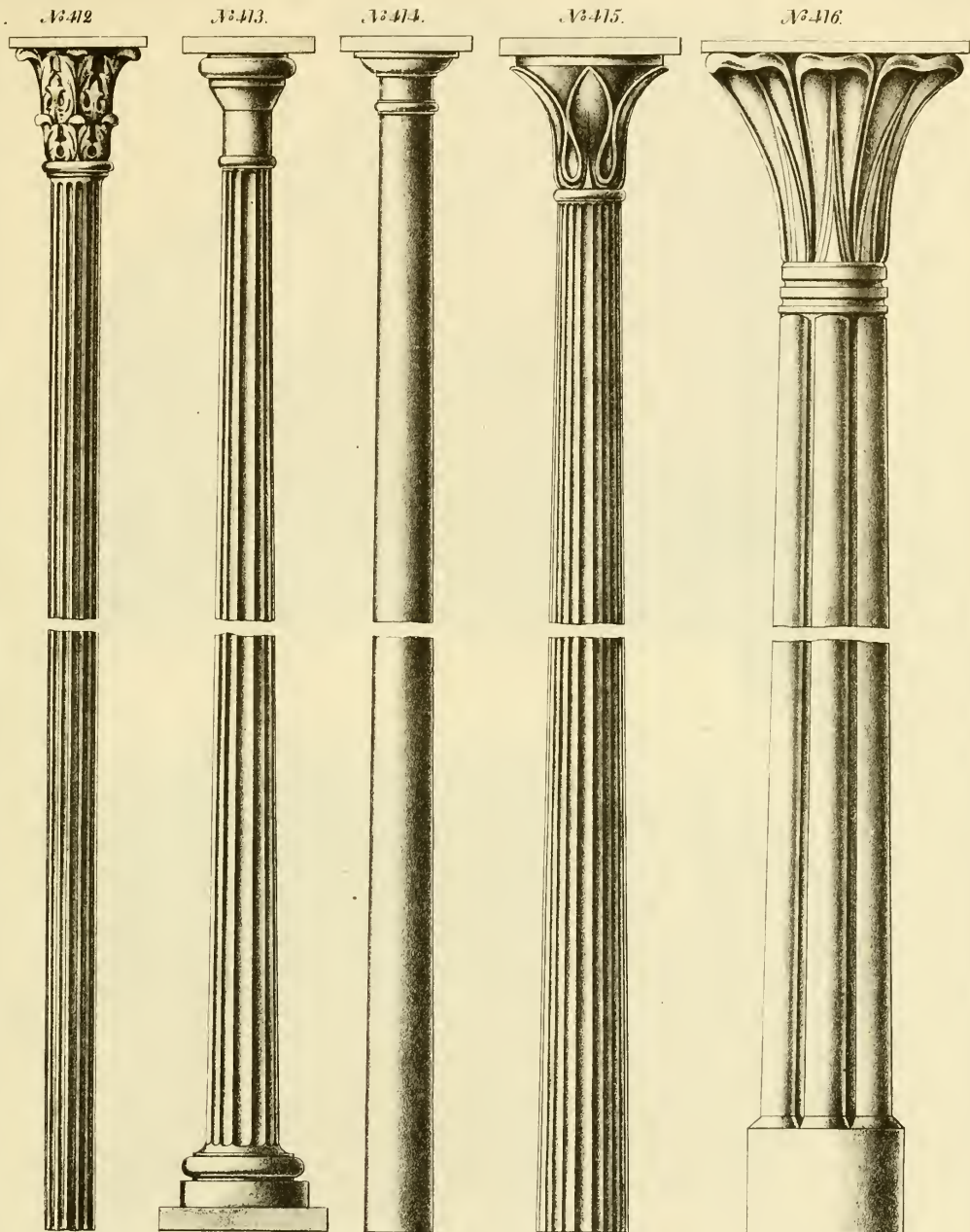
No. 411.

Spiral Stair Case of Cast Iron.

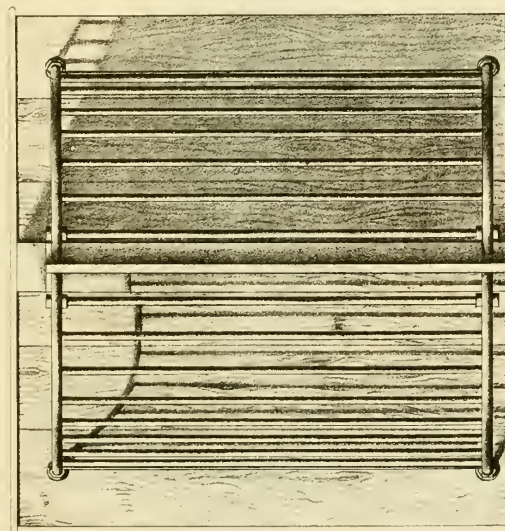
A3-411 a.



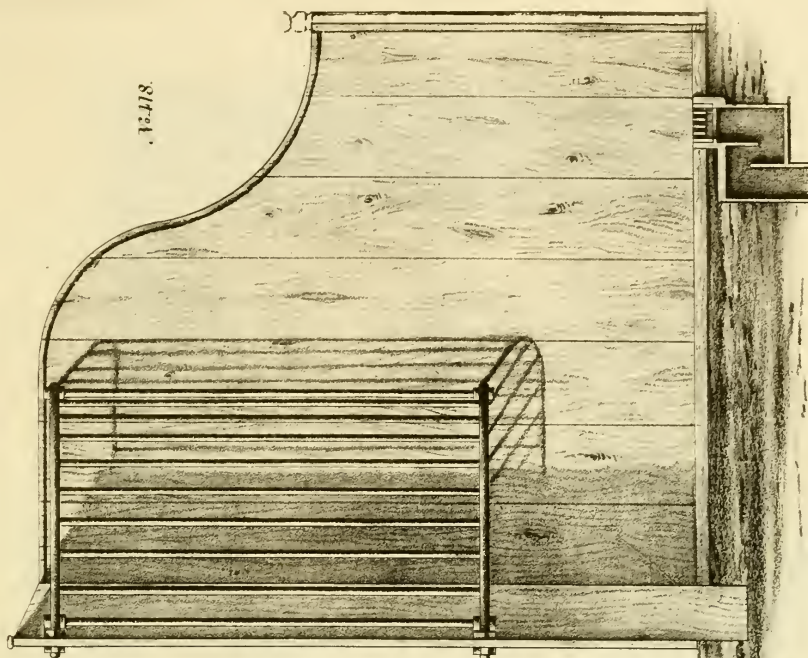
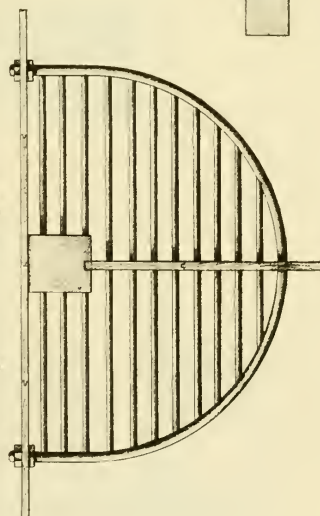
Spiral Stair Case or Fire Escape.



Cast Iron Columns.



Circular Hayrack of Gas Pipe



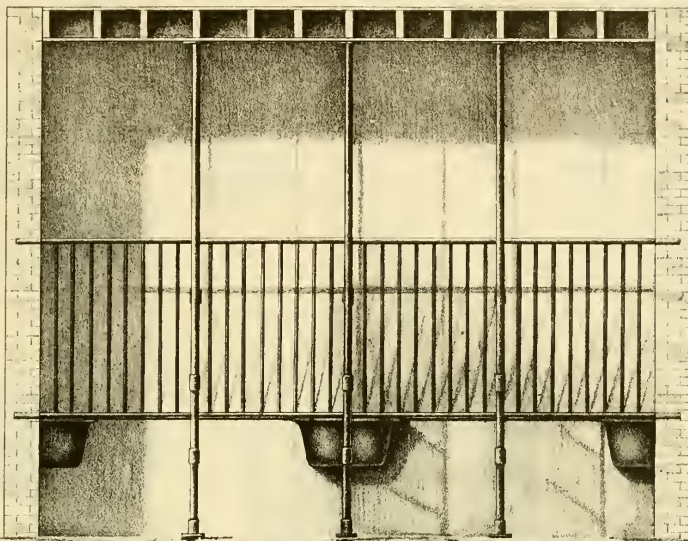
Stall Division Cast Iron Post, Top & Bottom Rail



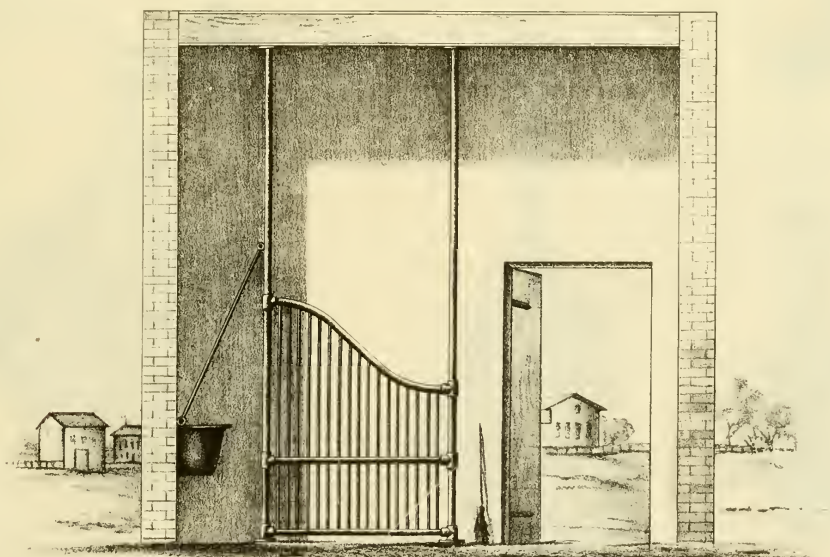
No. 417

No. 418

No. 419.
Stable Arrangements of Gas Tube.



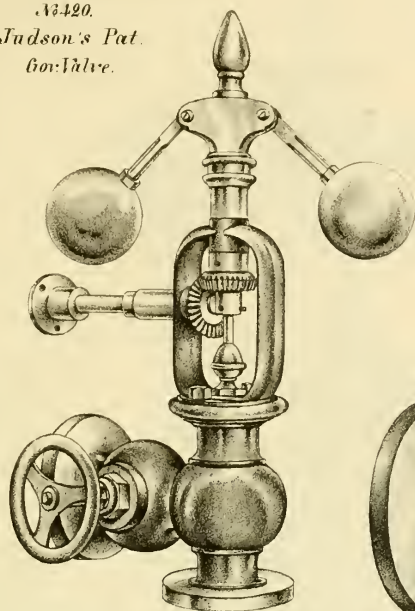
Front Elevation.



Side Elevation.

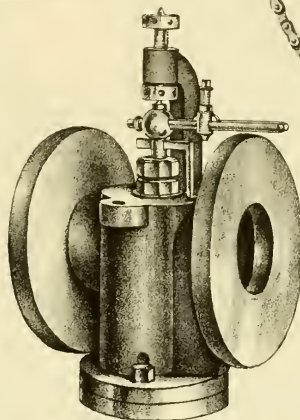
No. 420.

Judson's Pat.
Gov. Valve.



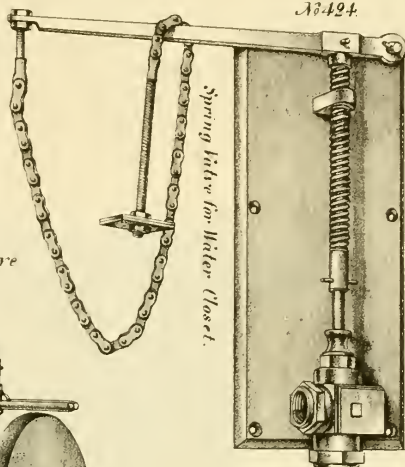
No. 420.

Judson's Pat. Valve



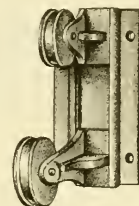
No. 424.

Spring Valve for Water Closet.



No. 425

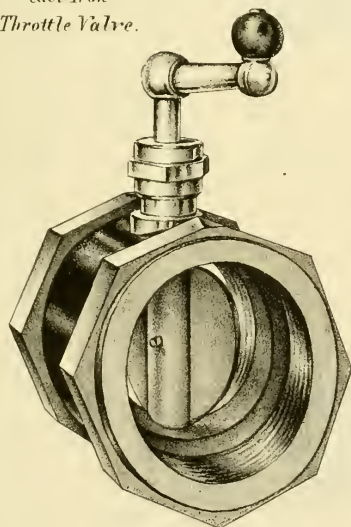
Pulley for Spring Valve



No. 421.

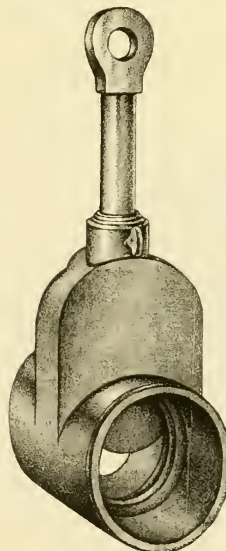
Cast Iron

Throttle Valve.

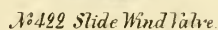


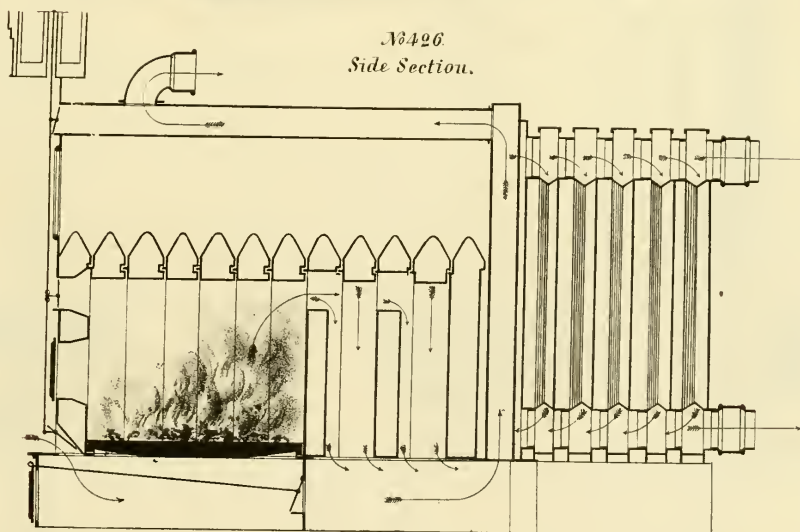
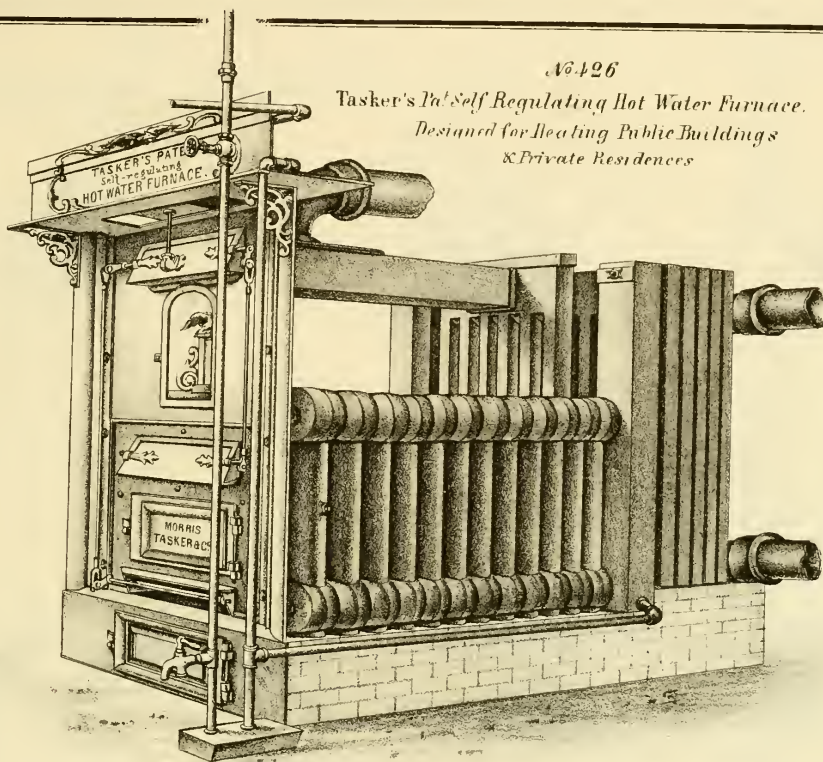
No. 423.

Throttle Wind Valve.

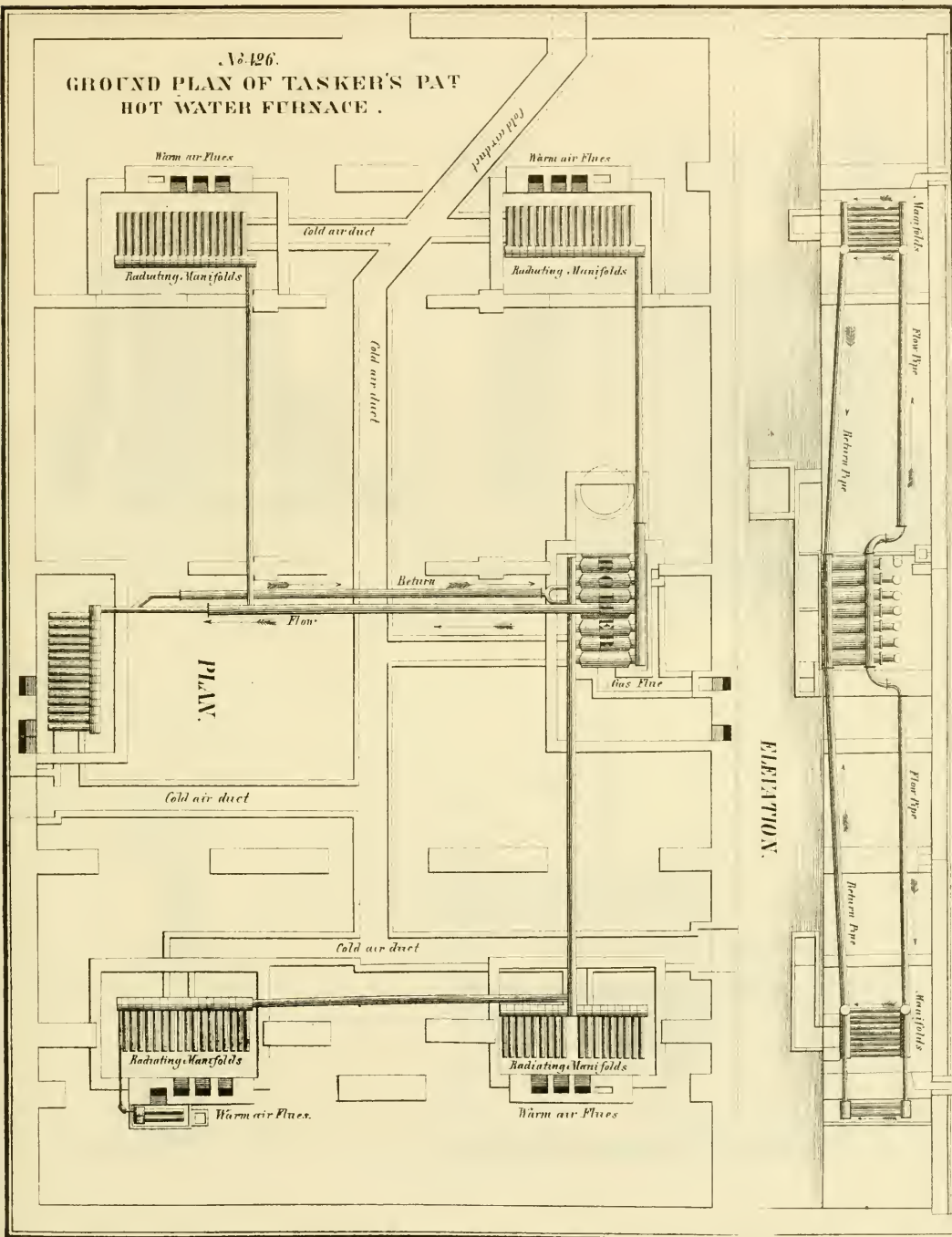


No. 422 Slide Wind Valve.



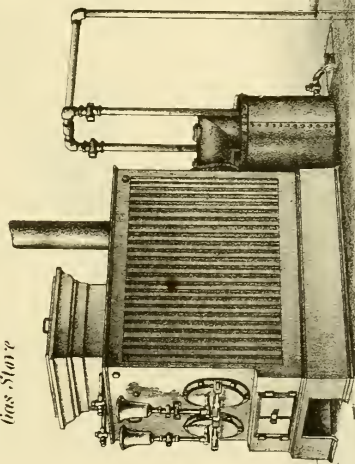


No. 126.
GROUND PLAN OF TASKER'S PAT
HOT WATER FURNACE.

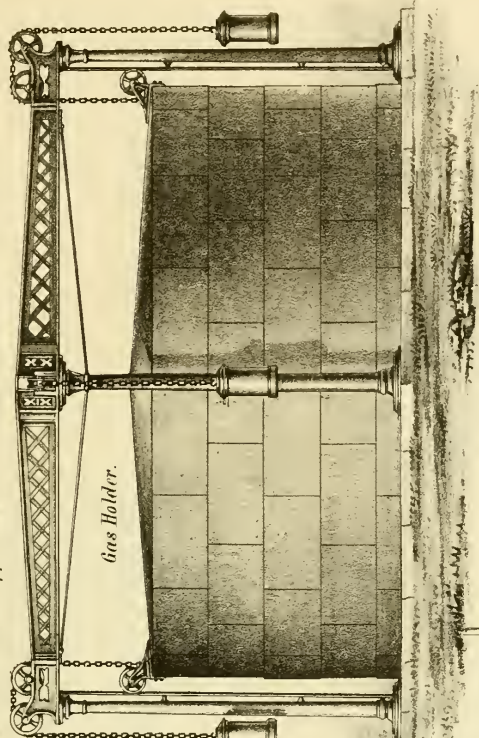


No. 128, Double Retort Rosin Gas Apparatus.

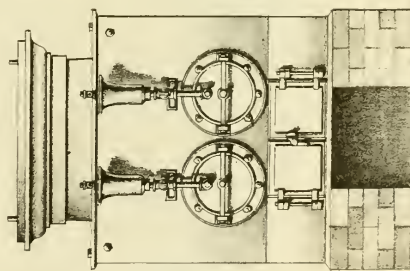
Gas Store



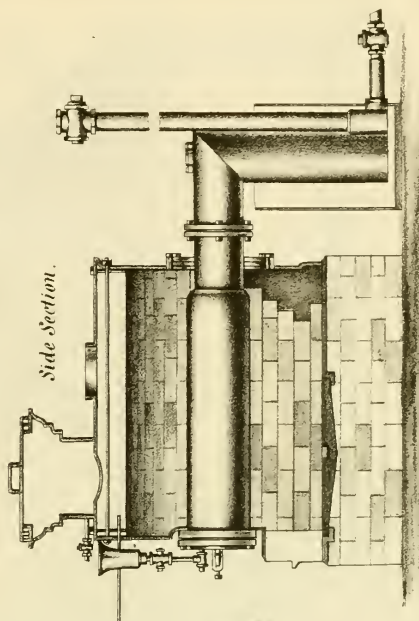
Gas Holder.



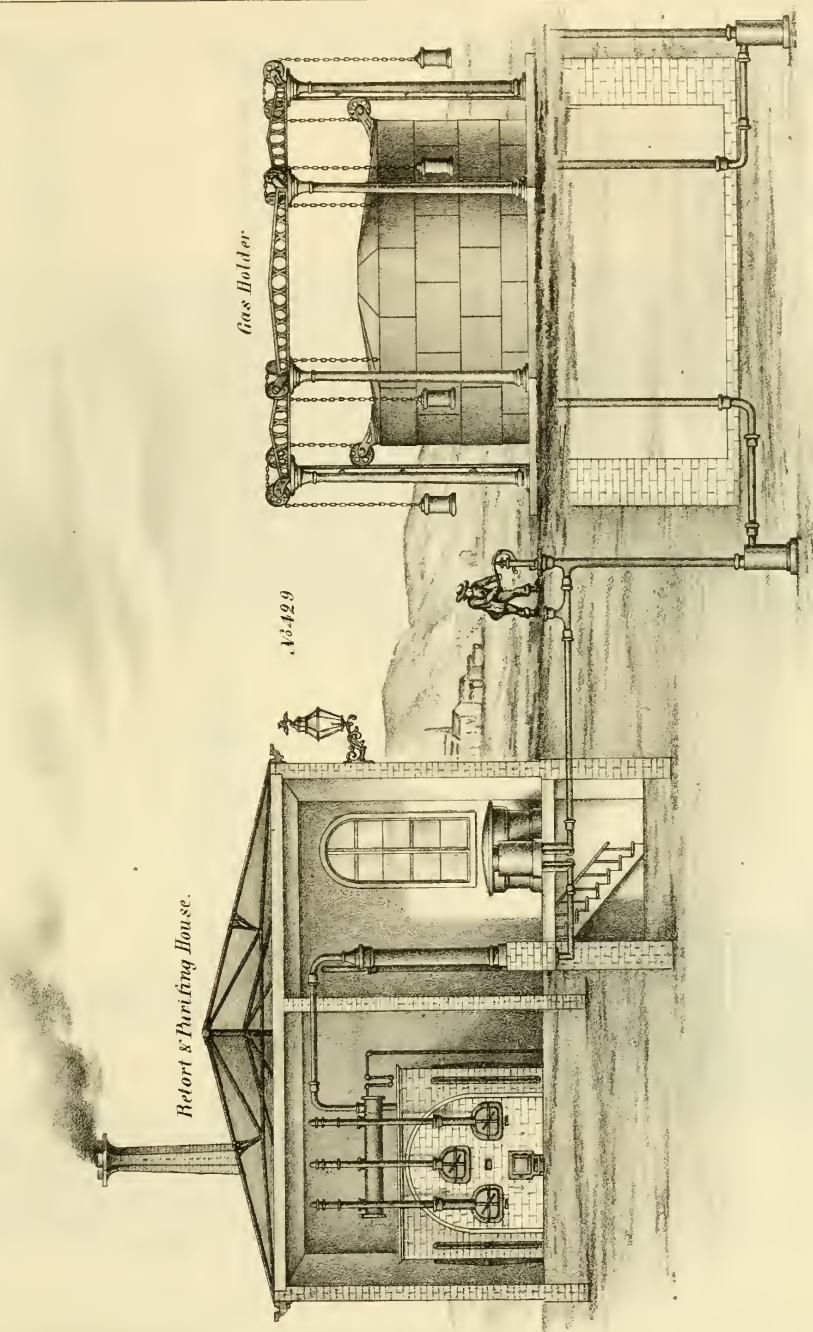
Front Elevation.



Side Section.

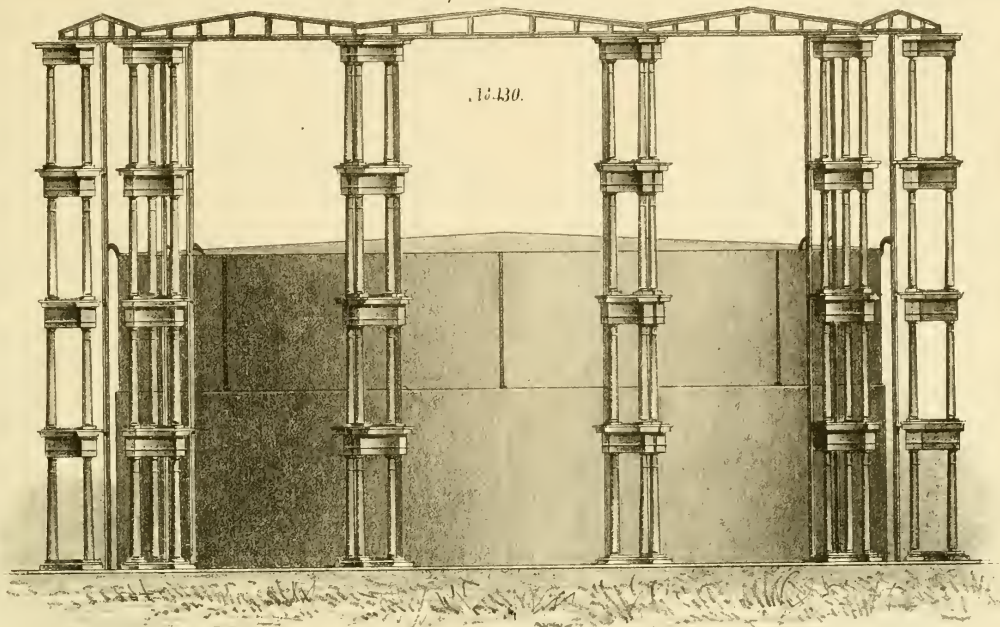




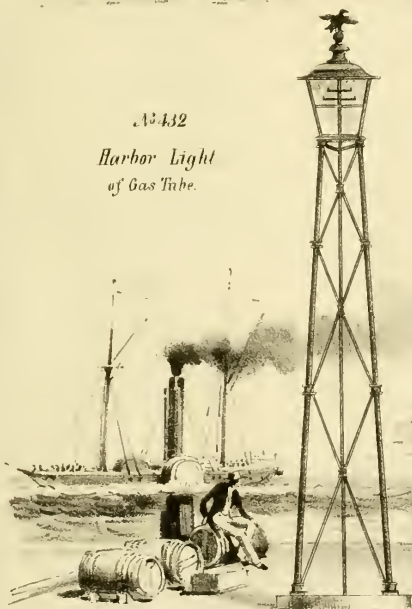


Coal Gas Works - One Bench

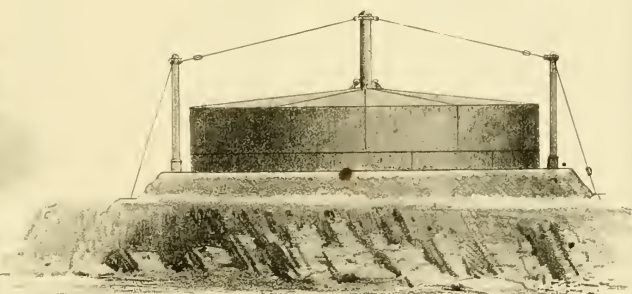
Telescope Gas Holder.



A3432
Harbor Light
of Gas Tube.



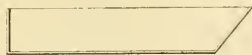
A3431.
Mast Gas Holder.





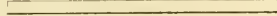
No 443.

Ash Pan.



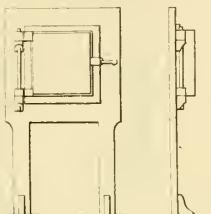
No 444.

Wrought Iron Grate Bar.



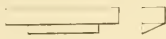
No 441.

Fire Door & Frame.



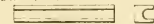
No 435.

Bevel Grate Bar Holder.



No 436.

Hollow Grate Bar Holder.



No 437.

Solid Grate Bar Holder.



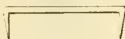
No 442.

Anchor for Fire Door.



No 443.

Braces for Fire Door Frame.



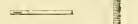
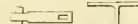
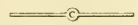
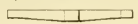
No 444.

Syphon



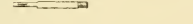
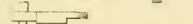
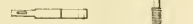
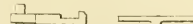
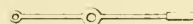
No 445.

Braces for Mouth Pieces.



No 446.

Braces for Mouth Pieces.



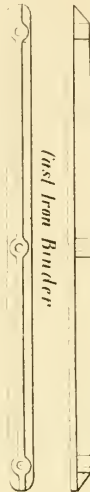
No 447.

Braces for Mouth Pieces.



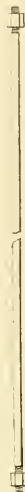
No 439.

Cast Iron Bander



No 438.

Wrought Iron Bolt for Binder.



No 440.

Sight Hole Box.



No 449.

Stand for Hydraulic Main.



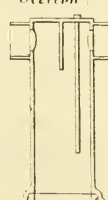
No 450.

Stand for Hydraulic Main.



No 451.

Section



Top Section



No 451.

Drip



Top View.



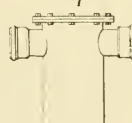
No 452.

Top View



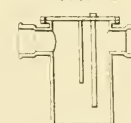
No 452.

Drip.



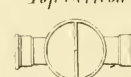
No 452.

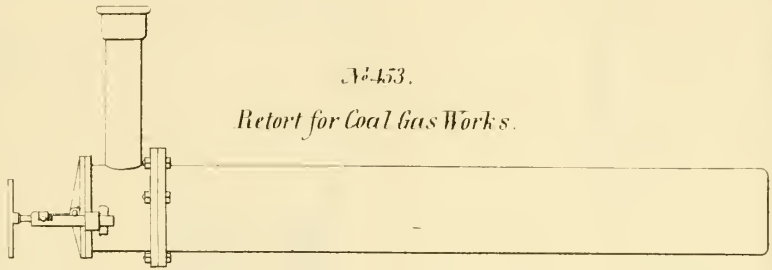
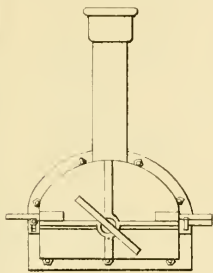
Section.



No 452.

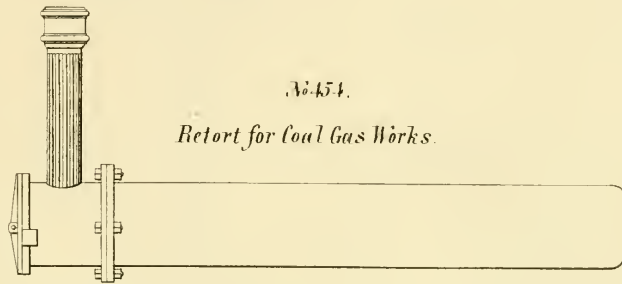
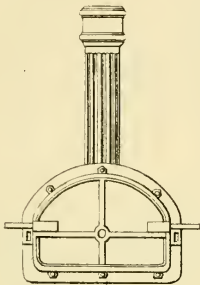
Top Section.





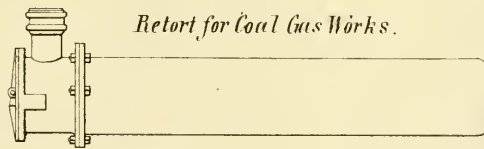
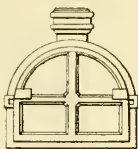
No. 453.

Retort for Coal Gas Works.



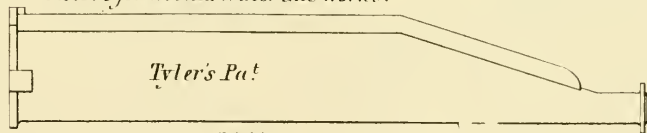
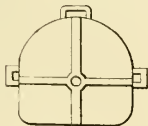
No. 454.

Retort for Coal Gas Works.



No. 455.

Retort for Coal Gas Works.



No. 456.

Retort for Wood & Water Gas Works.

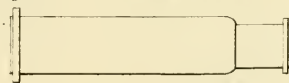
Tyler's Pat

No. 459.

Retort for Rosin Gas Apparatus.

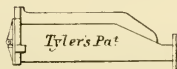


No. 457

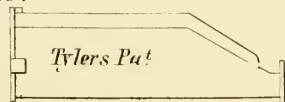
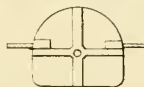


No. 458.

Retort for Wood & Water Gas Works.

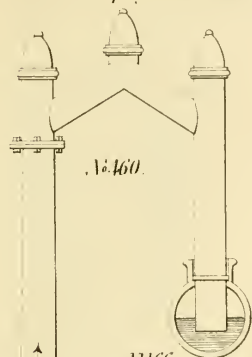


Tyler's Pat



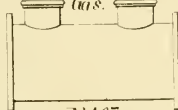
Tyler's Pat

Straddle Pipe for Coal Gas.

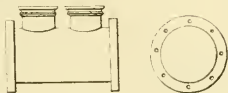


No 460.

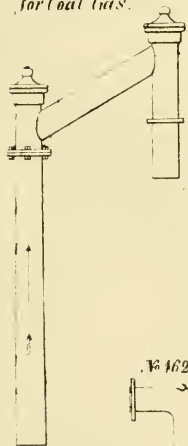
No 466.
*Hydraulic Main
for Wood & Water
Gas.*



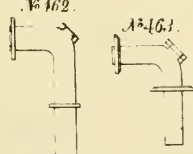
No 467.
*Hydraulic Main
for Wood & Water Gas*



No 461.
*Straddle Pipe
for Coal Gas.*

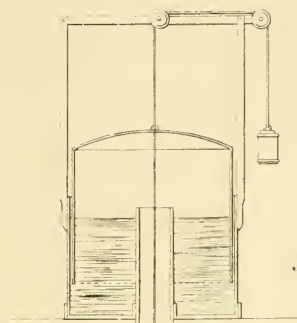


No 462.



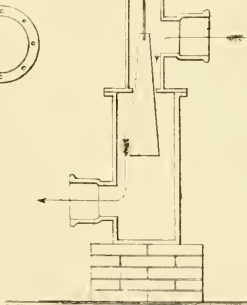
Straddle Pipes for Wood & Water Gas

No 463.



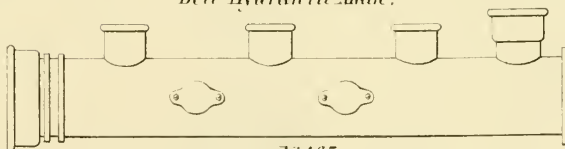
No 468.

Governor for Gas Works.



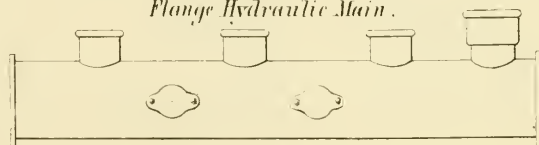
No 464.

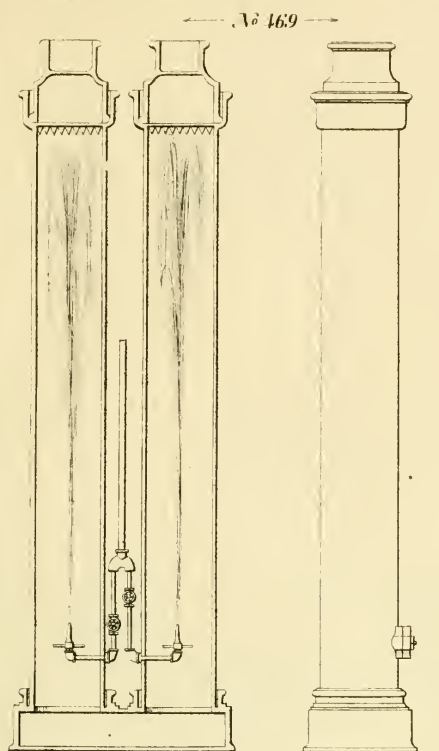
Bell Hydraulic Main.



No 465.

Flange Hydraulic Main.

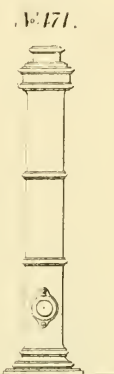




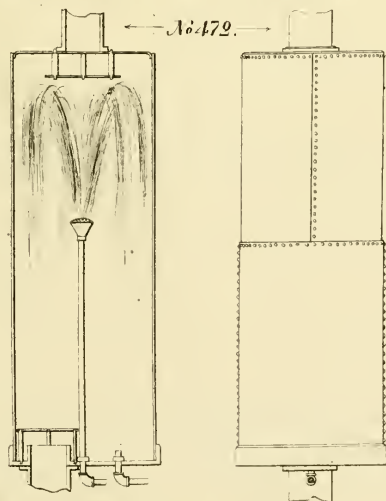
Double Washer. — Side View.



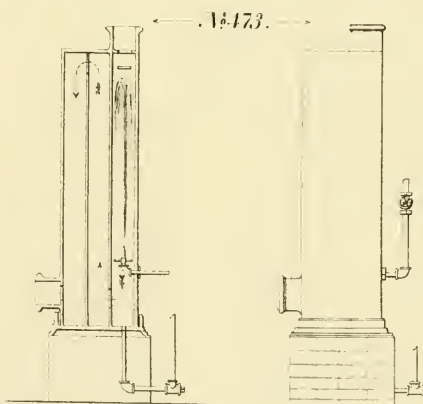
Single Washer.



Small Washer.



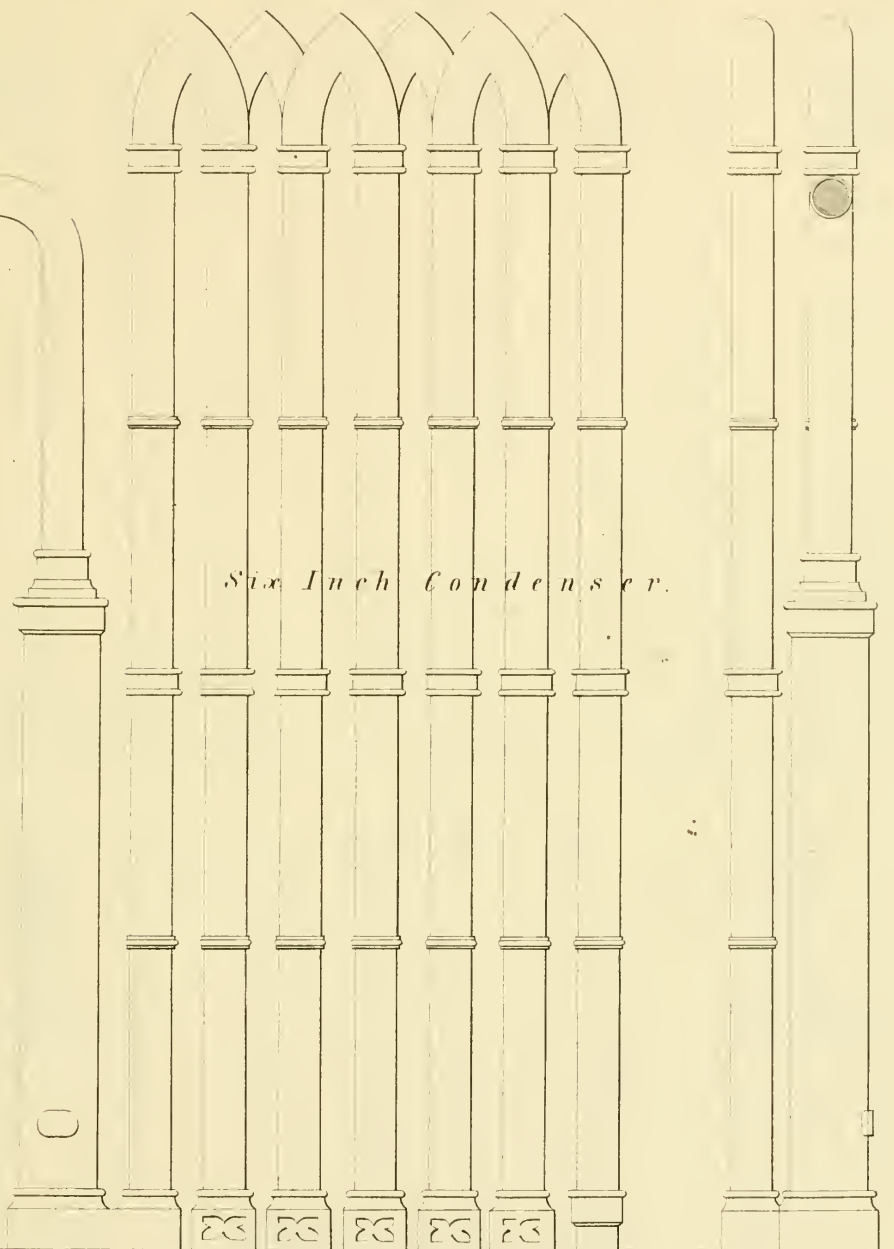
Wrot Iron Washer. — Side View.



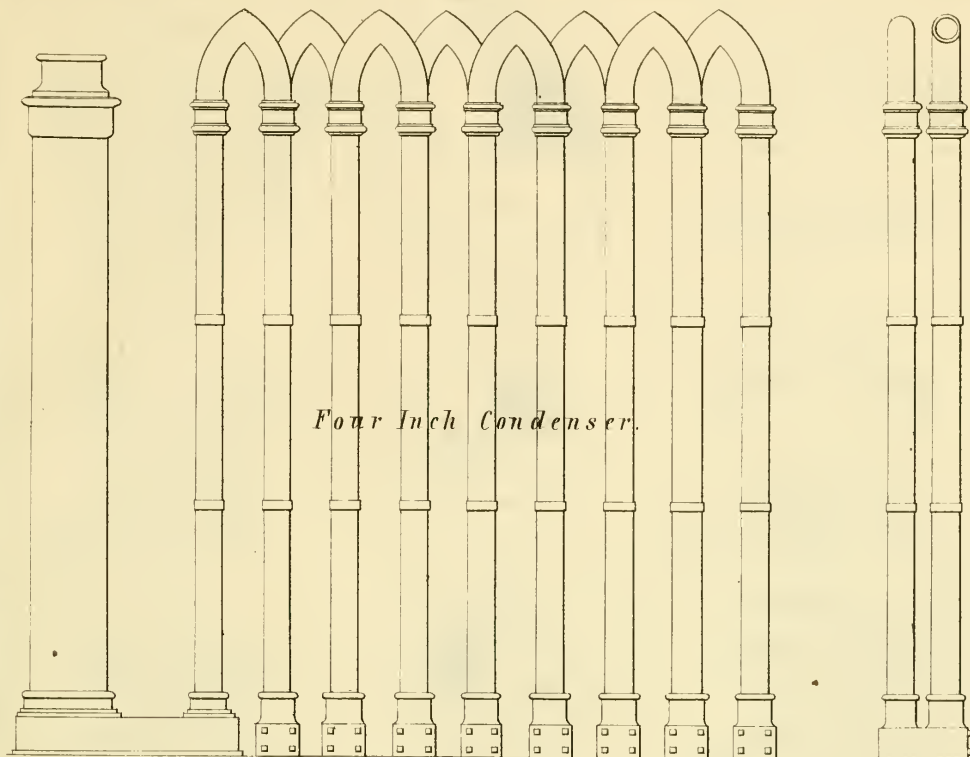
Washer & Condenser. — Side View.

No. 174.

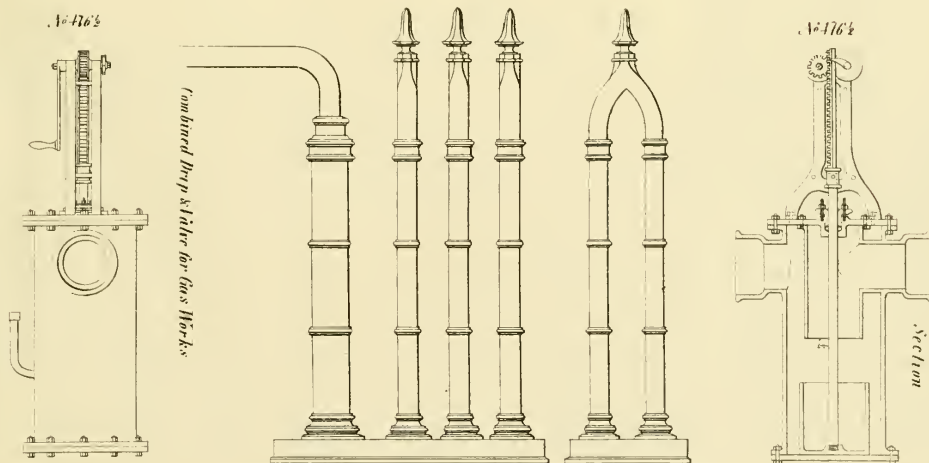
Six Inch Condenser.



No 475.

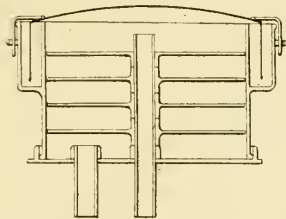


No 476.

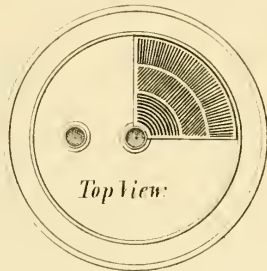


Three Inch Condenser.

Section.

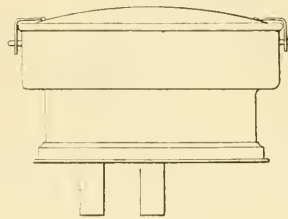


No. 478.

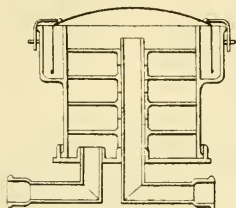


Top View

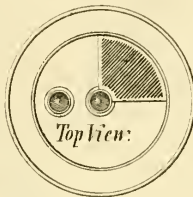
Round Purifier.



Section.

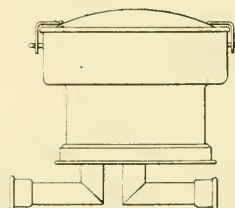


No. 479.

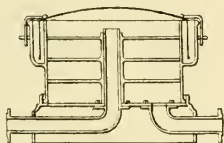


Top View

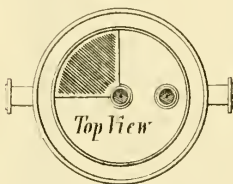
Round Purifier.



Section.

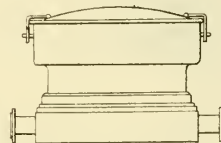


No. 480.



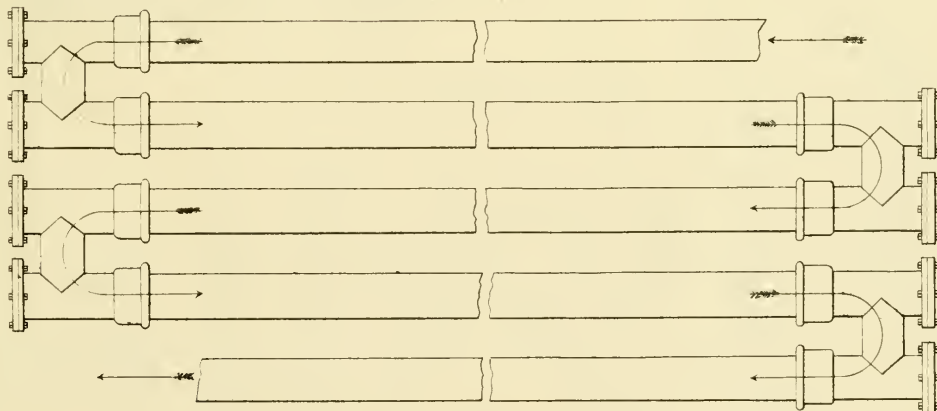
Top View

Round Purifier.

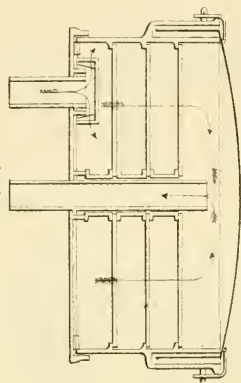


No. 477.

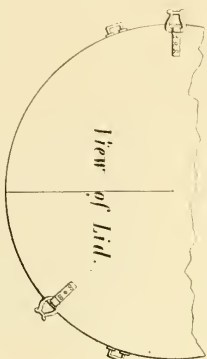
Condenser.



No 481.
Section.

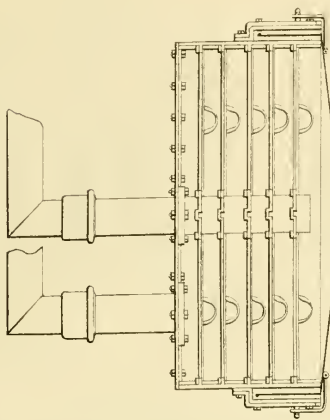


No 481.

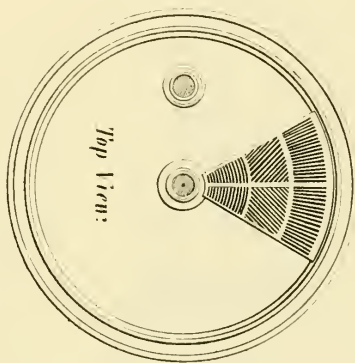


View of lid.

No 482.
Section.

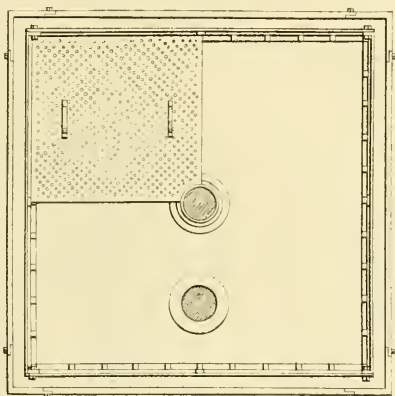


No 481

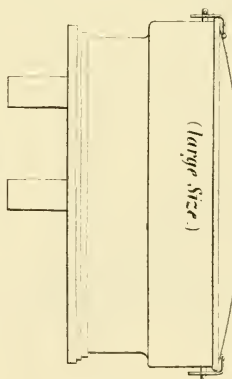


Top View.

No 482.
Top View.

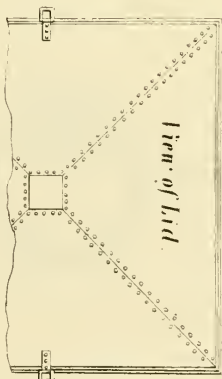


No 481.
Round Purifier.



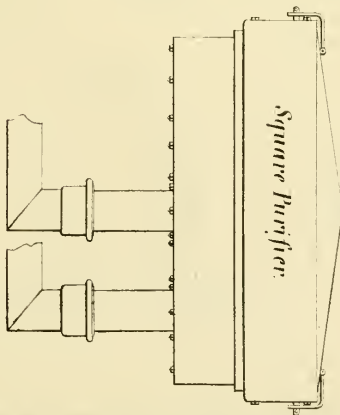
(Large Size)

No 482.



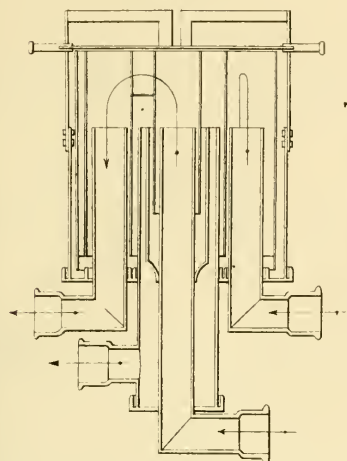
View of lid.

No 482.



Square Purifier.

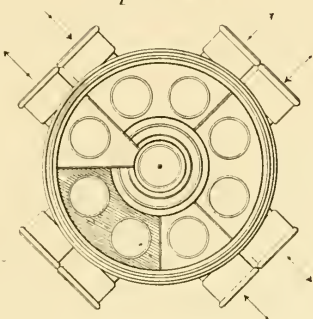
Section.



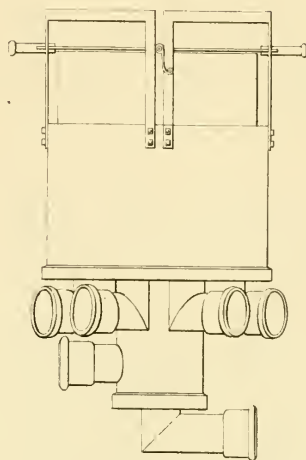
Centre Seals.

← No 483 →

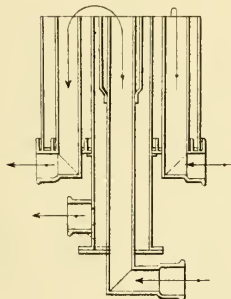
Top View.



Side View.

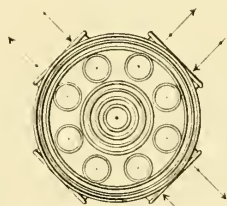


Section

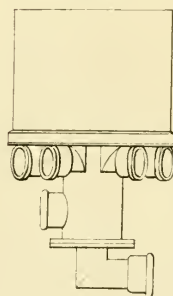


← No 484 →

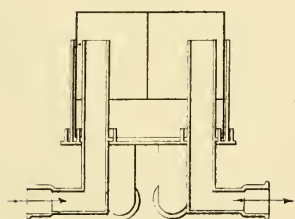
Top View.



Side View.

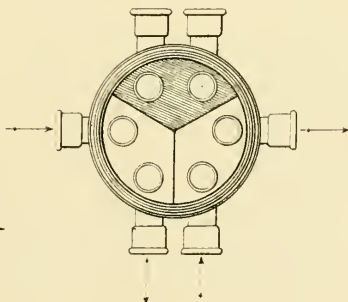


Section.

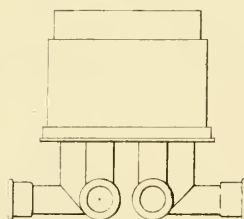


← No 485 →

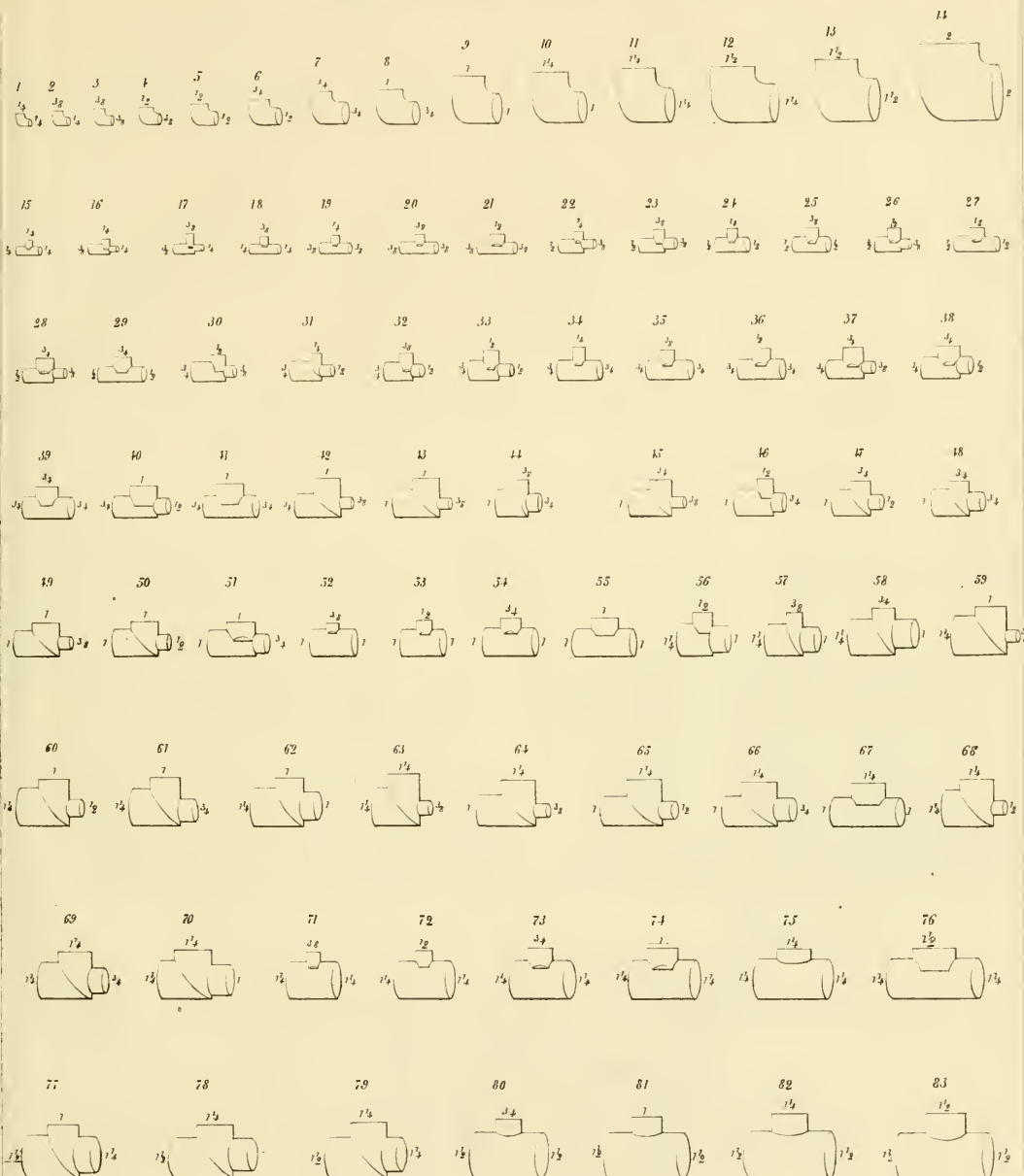
Top View.



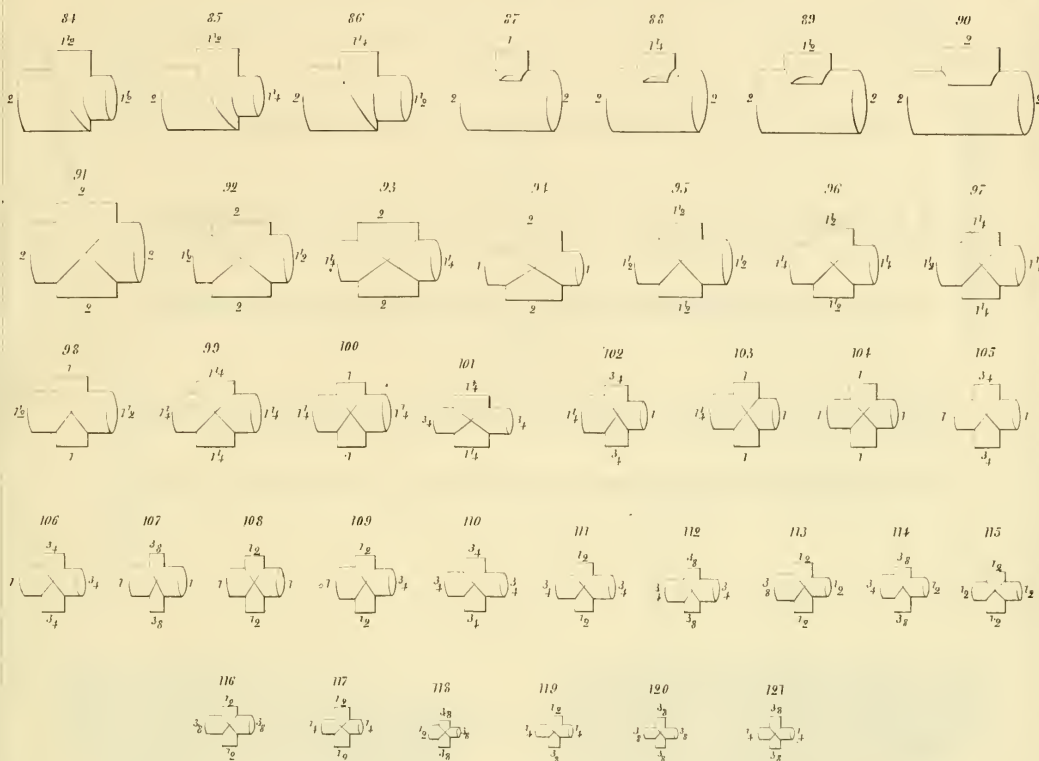
Side View.



MALLEABLE IRON GAS FITTINGS.



MALLEABLE IRON GAS FITTINGS.



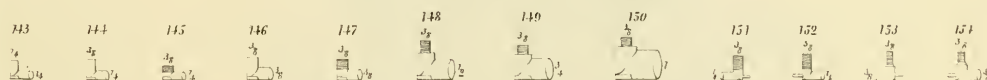
DROP TEES.



REDUCERS.



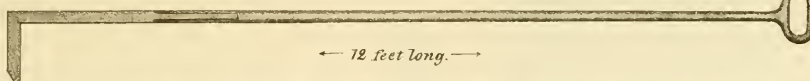
DROP ELBOWS.



N3489
Tongs



N3486
Poker

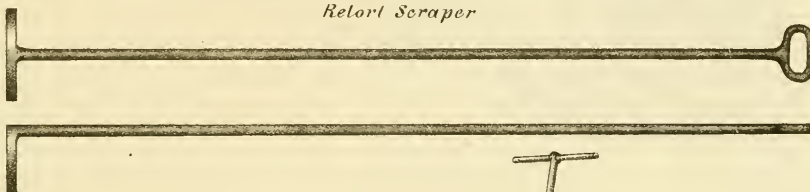


N3489

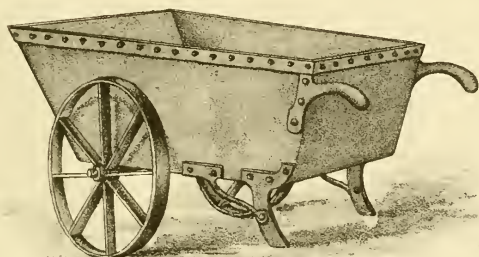
N3487
Chisel Bar



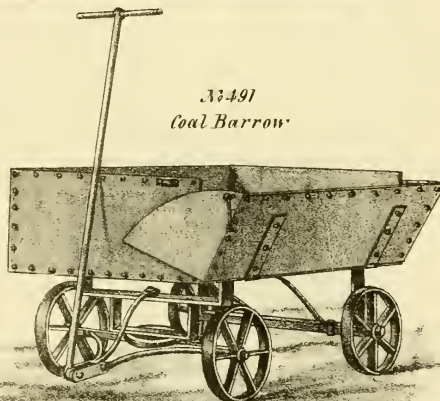
N3488
Retort Scraper



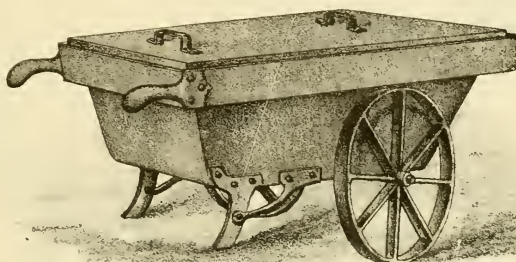
N3490
Coke Barrow

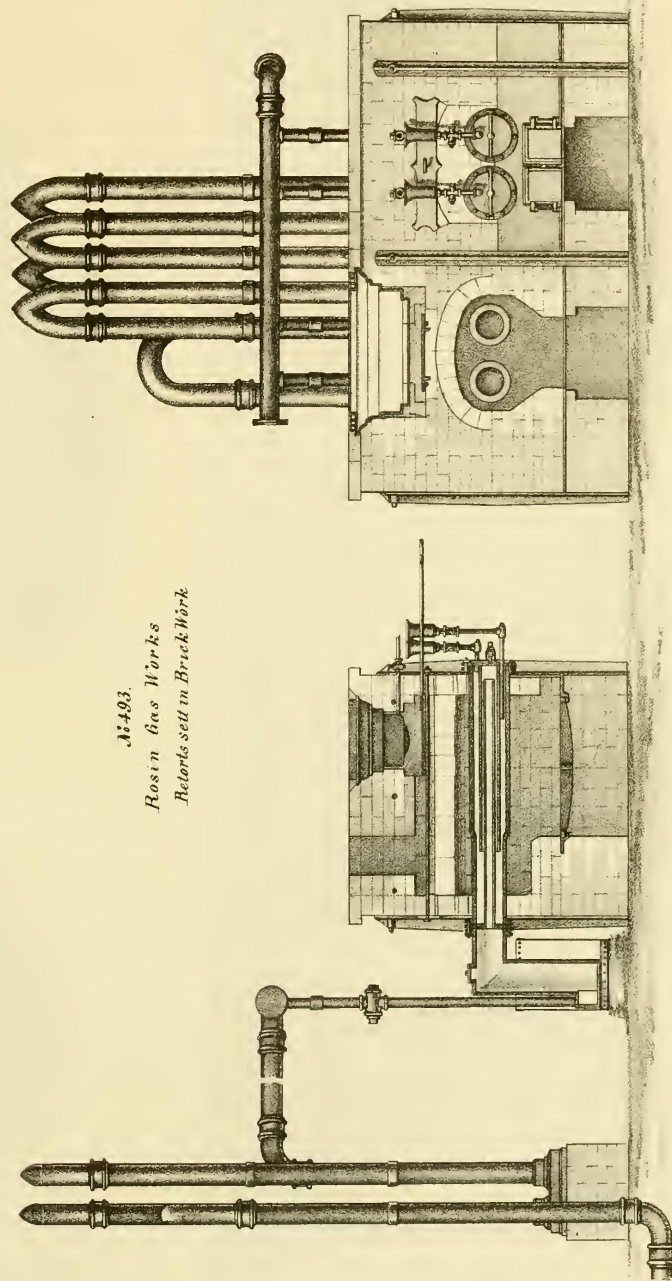


N3491
Coal Barrow



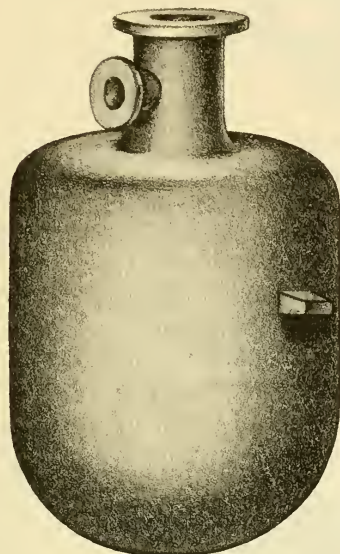
N3492
Charcoal Barrow





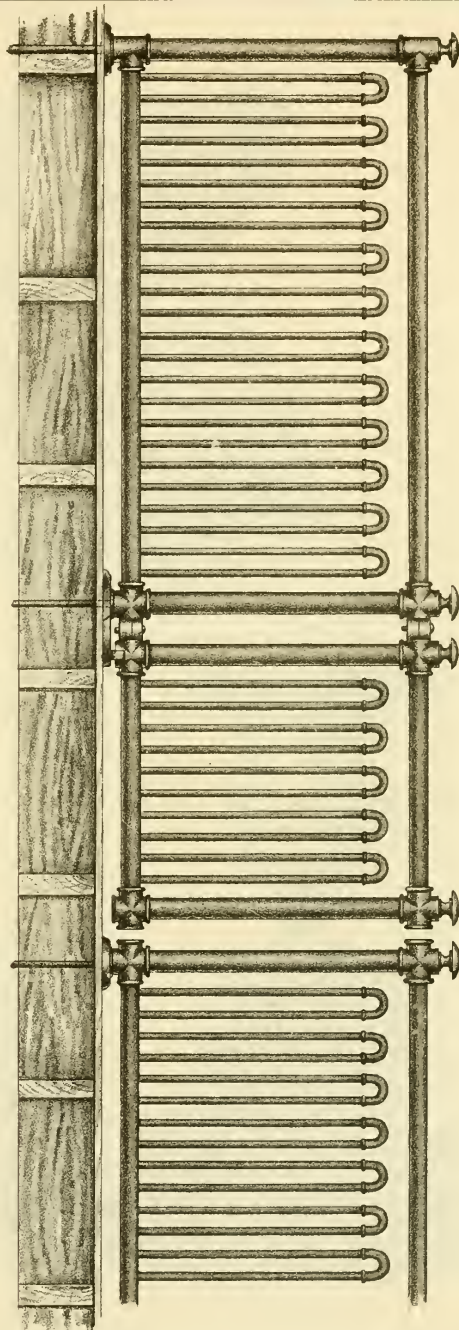
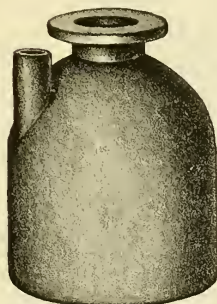
No. 493.
Gas Works
Retorts set in Brick Work

N^o 495



Chemical Retorts.

N^o 495



Gas Pipe Heating & Steam Radiation Combined

N^o 494

No 496



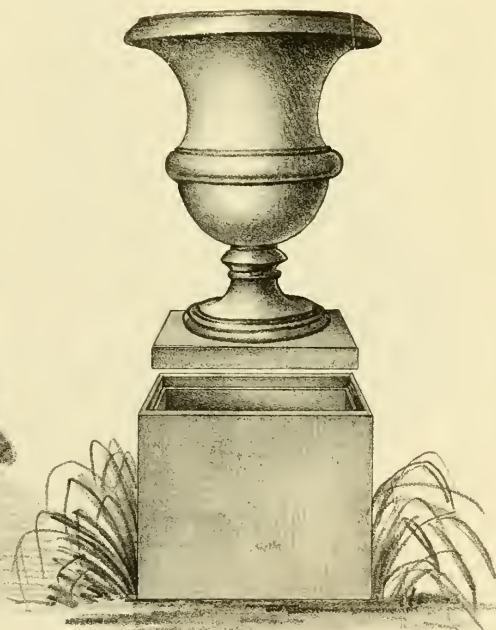
No 497

Garden Vase.

No 498



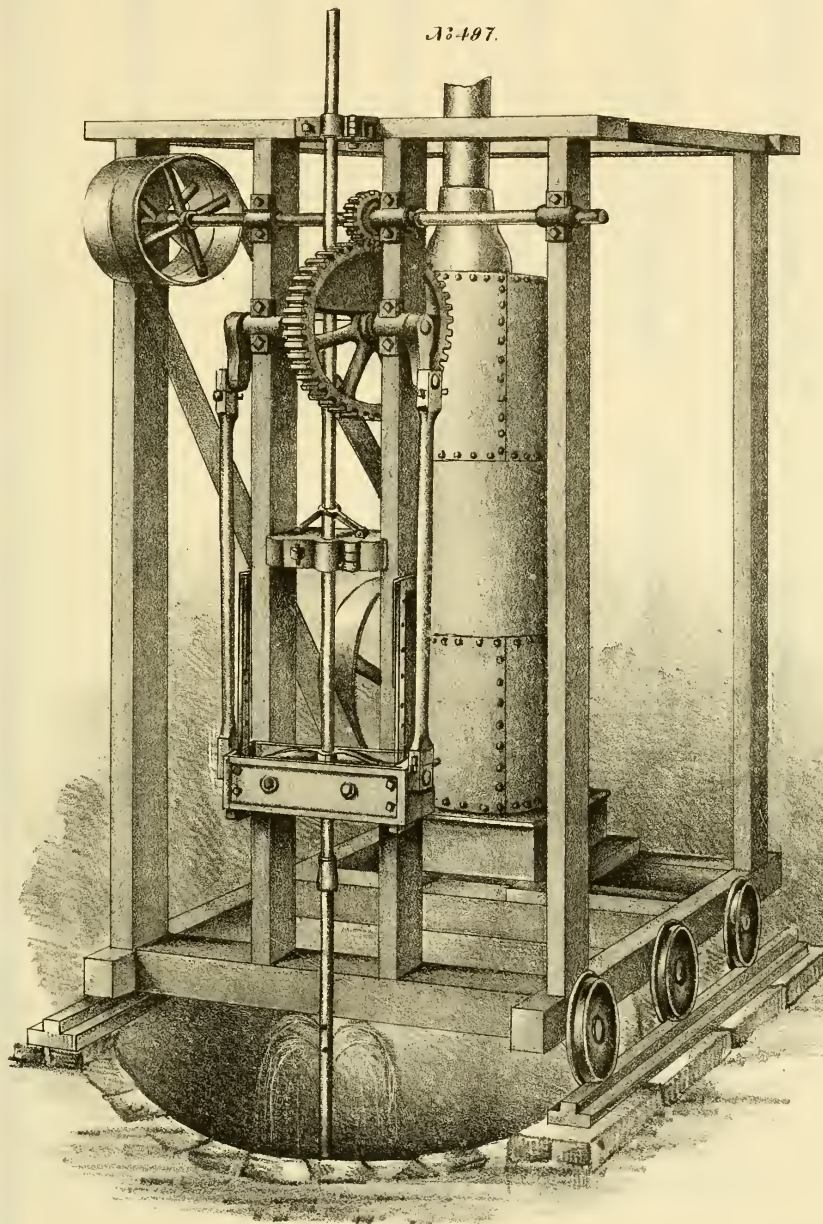
Garden Vase.

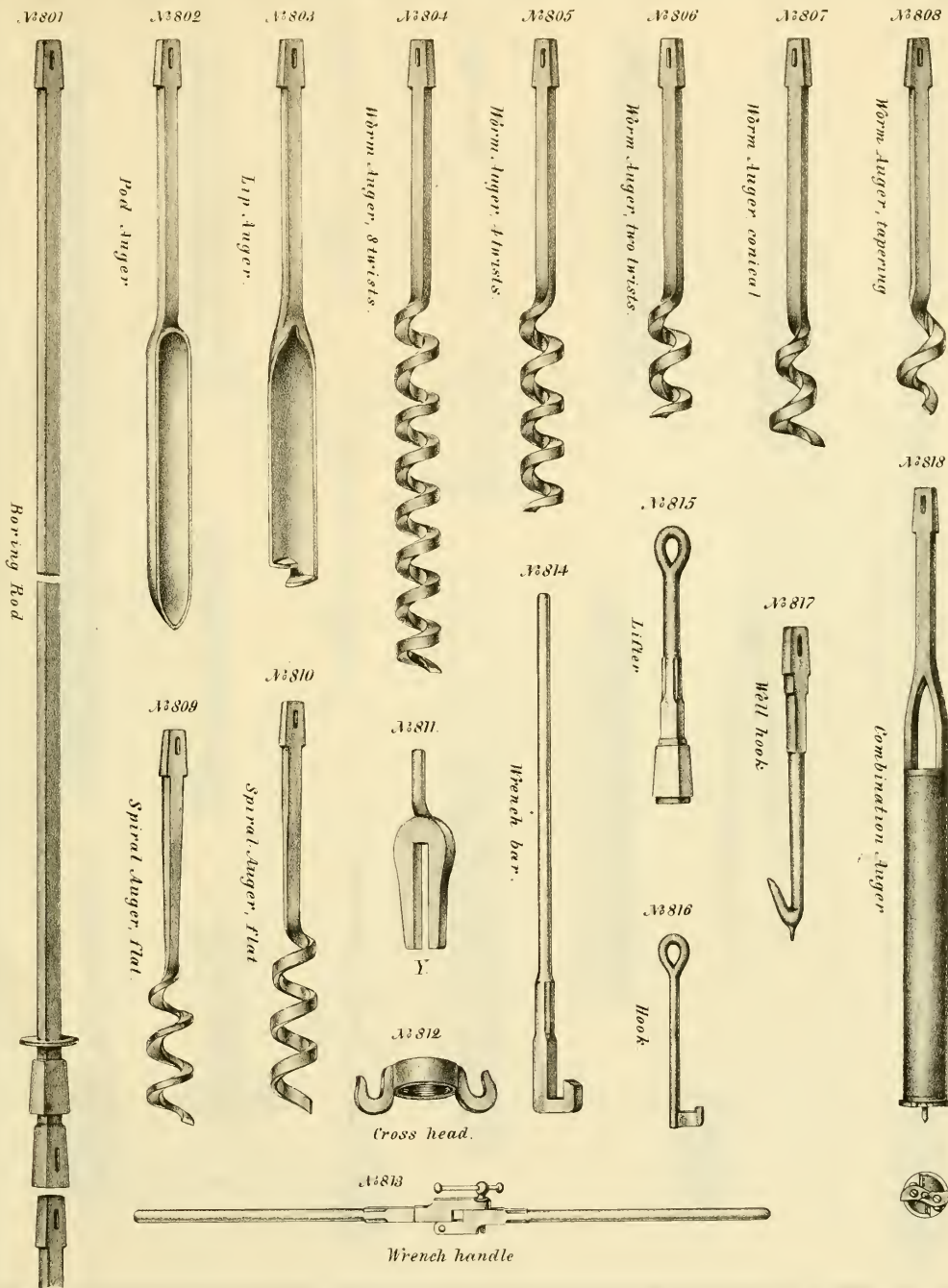


Garden Vase.

Bolles Rock Drilling Machine

33-497.





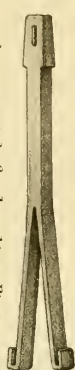
N^o 819

Boulder cracker



N^o 820

Spring catch for hauling pipe



N^o 821

Hook



N^o 822

Hook



N^o 823

Drill stock & Drill for soft rock



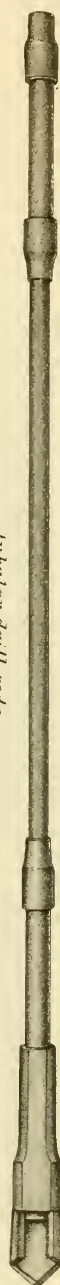
N^o 824

Catchall



N^o 831

tubular drill rods



N^o 826

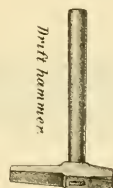
Catch hook for hauling pipe



N^o 827



Hook



N^o 829

Thief Bucket



N^o 832

Drill stock



N^o 835

Clamp



N^o 825

Catchall



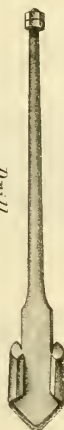
N^o 830



Socket & hook for lifting rods

N^o 833

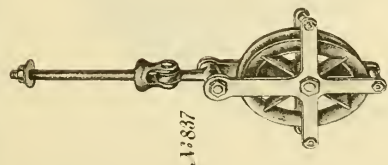
Drill



N^o 834

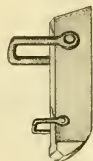
Drill





12837

gin pulley.



12836

catch for hauling pipe.



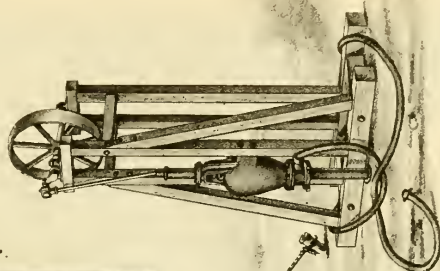
12838

Section of a pumping cylinder.

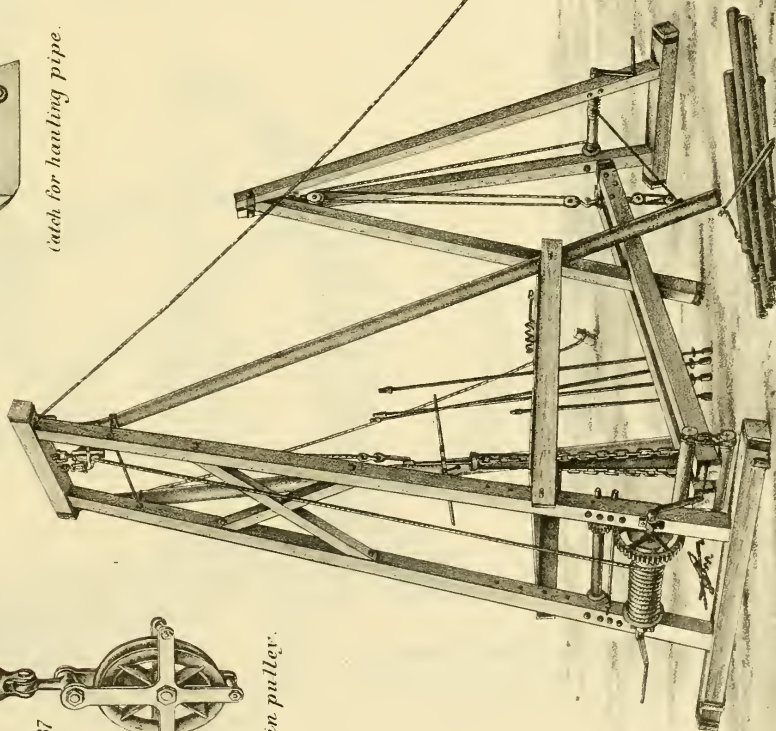


12839

Top views of buckets.



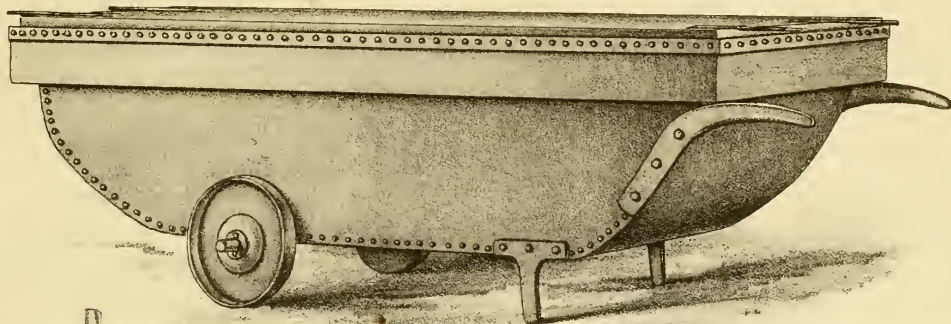
Deep Well Pump



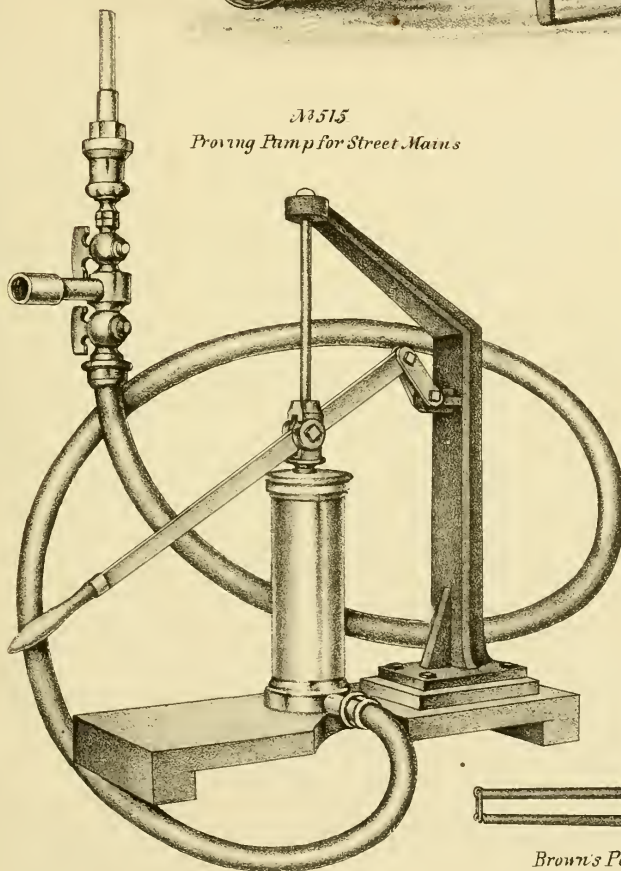
12840

Apparatus for sinking Artesian Wells

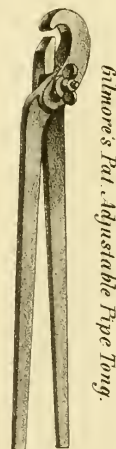
N^o 514
Charcoal Barrow.



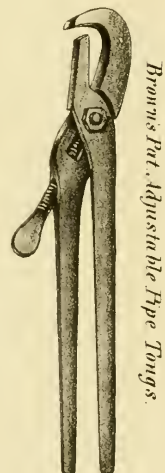
N^o 515
Proving Pump for Street Mains



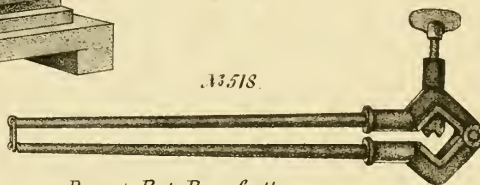
N^o 516.



N^o 517



N^o 518.



Brown's Pat Pipe Cutter

2000-2001-2002

2000-2001-2002

2000-2001-2002

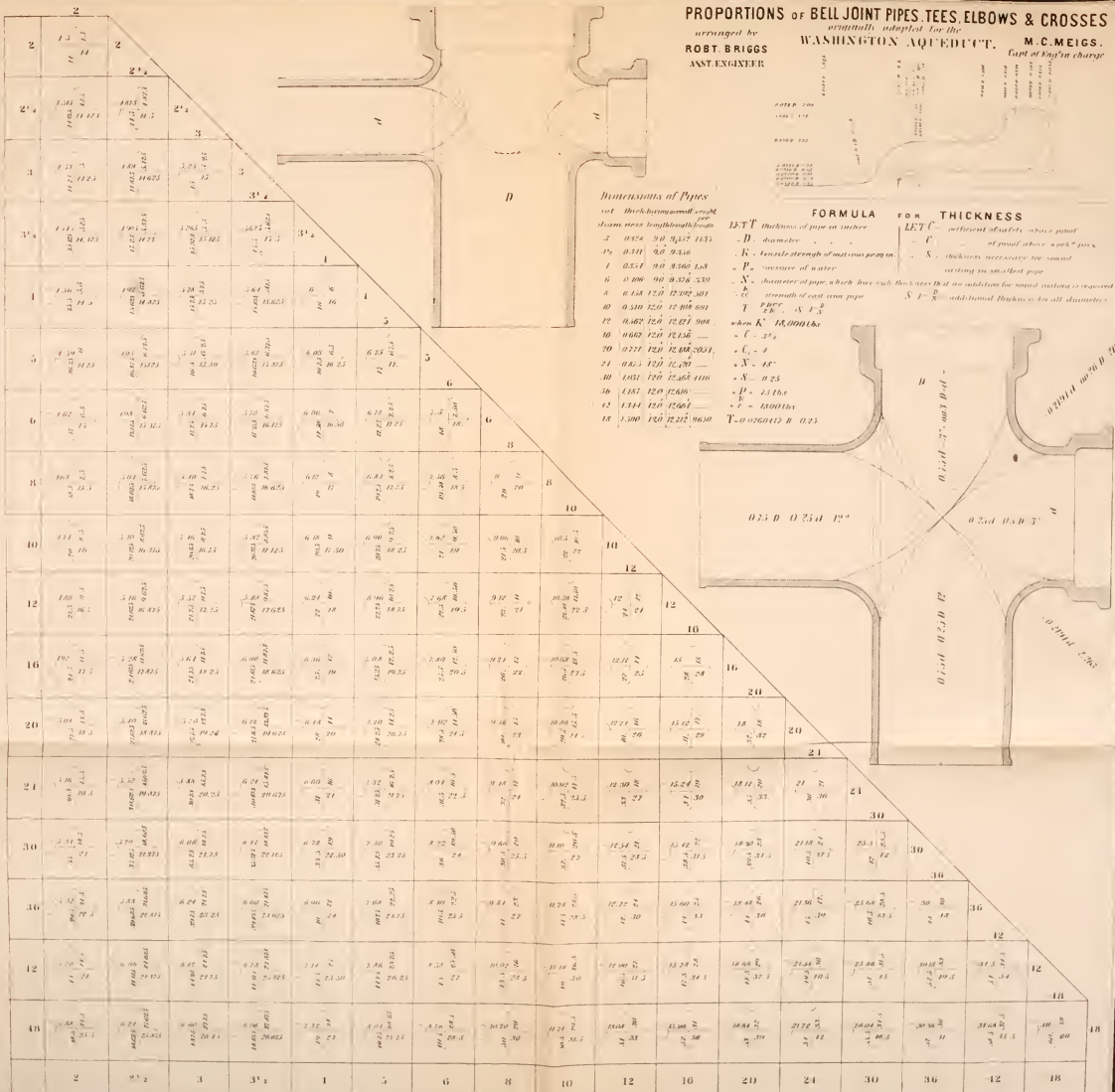


MORRIS, TASKER & CO'S ILLUSTRATED CATALOGUE.

PROPORTIONS OF BELL JOINT PIPES, TEES, ELBOWS & CROSSES

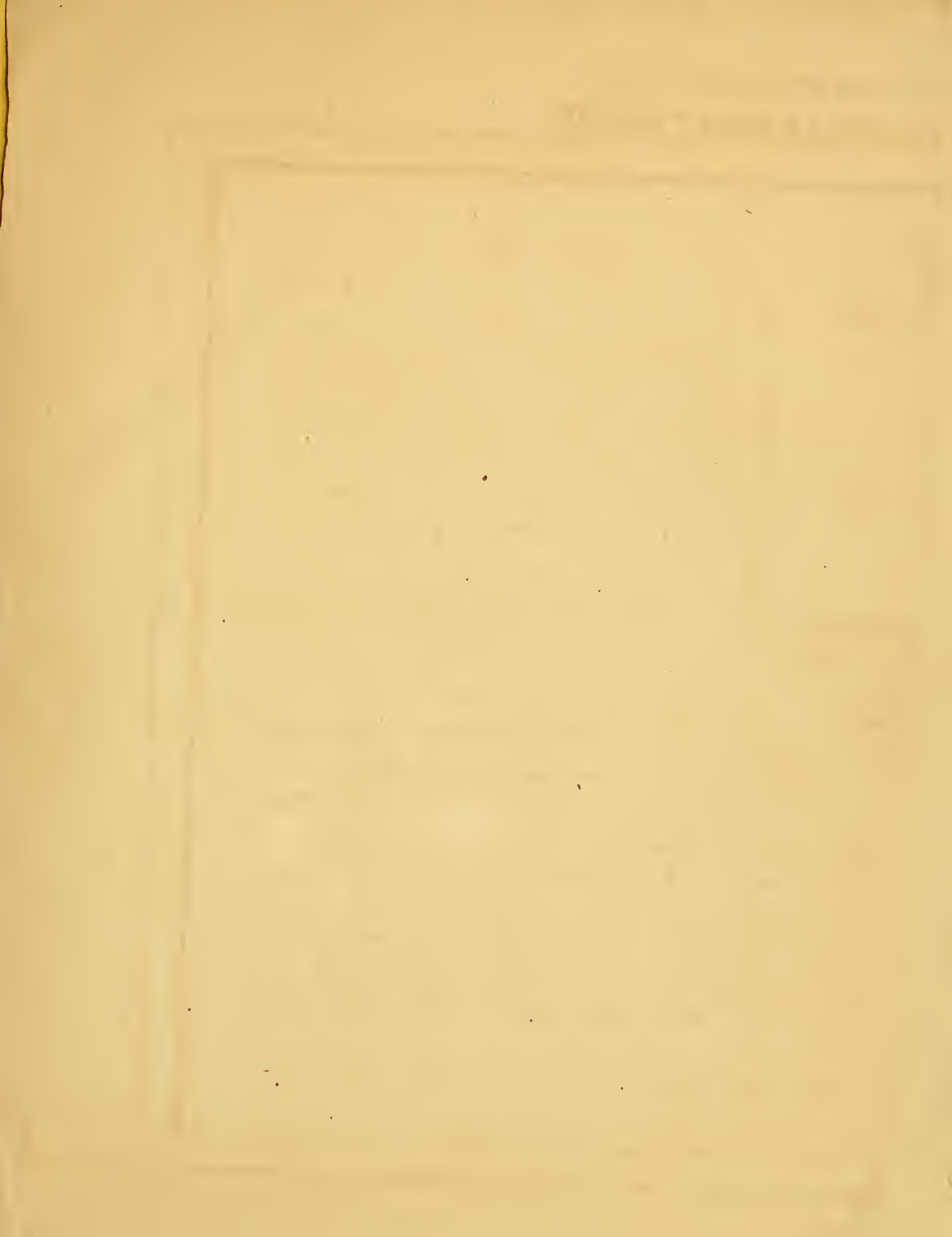
arranged by
ROBT. BRIGGS
AST. ENGINEER

usually adopted for the
WASHINGTON AQUEDUCT. M.C. MEIGS.
Capt of Eng'n Corps



The above dimensions give the length from the centres to bottom of bells or ends of spigots

Entered according to the Act of Congress in the year 1863 by Robt Briggs in the Clerk's Office of the Dist Court of the Eastern Dist of Penna



Departed 9 May 1871
Morris, Foster &
Pugh

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